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ABSTRACT

The National Consortium on Testing undertook a case study of South Carolina's competency testing program. The Basic Skills Assessment Act (BSAA) passed in 1978 provided for the Basic Skills Assessment Program (BSAP). This program seemed a progressive approach because it is keyed to particular educational objectives. It is being implemented sequentially and focuses on assessment early in a student's school career. The assessment program provides information useful in furthering a child's development and learning. The report focused on the first grade readiness assessment portion of the BSAP. Kindergarten attendance is not compulsory in South Carolina. Therefore, children enter first grade with a wide variety of educational experiences. Teachers and administrators perceived many strengths and positive aspects to the readiness assessment in addition to its weaknesses. However, assessment does not seem to be influencing teaching and learning as it was assumed in the developement of BSAP. Implementation of centrally planned educational programs often encounters problems at the classroom level. The BSAP was found to be very progressive when compared to other state competency testing programs. Recommendations for improvements were listed. (DWH)

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NATIONAL CONSORTIUM ON TESTING
STAFF CIRCULAR NO. 8

BASIC SKILLS ASSESSMENT IN SOUTH CAROLINA: HOW PROGRESSIVE AN APPROACH TO MINIMUM COMPETENCY TESTING?

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by

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January 1981

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This is the eighth of a series of staff circulars prepared as part of the Huron Institute's staff work for the National Consortium on Testing. The paper is intended to spur discussion on the role of statewide minimum competency testing programs, and to raise questions regarding how such programs (and in particular the South Carolina program which is the topic of the case study) can be improved. Although the circular has been prepared as part of staff work for the Consortium, with cooperation of numerous educators and officials in South Carolina, and with funding from the Carnegie Corporation, it does not necessarily reflect the views of anyone other than the authors.

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PREFACE

The case study reported in this paper is the product of the cooperation and counsel of numerous people. In this preface, we therefore would like to express our thanks to people who have helped us in the preparation of this report and also to describe briefly who we are as authors of the report.

First and foremost, we wish to express our sincere appreciation to the people in South Carolina whose cooperation made this study possible. In particular, we wish to thank the teachers, parents, principals, and superintendents in the six districts we visited. Though we cannot thank them here by name, for reasons of confidentiality, their help and cooperation was obviously essential in carrying out the case study. Also, special thanks are owed to the officials of the South Carolina State Department of Education (SDE). Dr. Charlie Williams, South Carolina's Superintendent of Public Instruction, welcomed us most cordially. In addition, special appreciation is expressed to Dr. Paul Sandifer, Director of the SDE Office of Research, and Dr. Vana Meredith, Chief Supervisor of the Educational Assessment section of the Office of Research. Everyone within the SDE whom we contacted, but especially these two, were unfailingly helpful to us. Despite overburdened schedules, and myriad demands on their time and energies, these individuals graciously welcomed our case study. Our appreciation of their cooperation is heightened by our recognition of

the fact that their cooperation was motivated out of generosity -- that others might learn from the experiences of South Carolina -- and open-mindedness -- that we as outsiders might offer observations that would prove useful -- both to the SDE and to other South Carolinians working to improve education for the benefit of all children of the Palmetto state.

So who exactly are we, these outsiders? Since we four brought to the case study quite different sets of experience and perspective, let us briefly describe our backgrounds:

Carol Kimmel has been active in educational affairs for more than thirty years. She has served as an advisor on many Parent Teacher Association (PTA) national projects and was President of the National PTA from June 1975 to May 1977. She has served as a trustee for Southern Illinois University and for the March of Dimes Birth Defects Foundation, as a Commissioner from Illinois to the Education Commission of the States, on the Advisory Committee for Science Education of the National Science Foundation, as Chairperson of the Community Education National Advisory Council, and on the congressionally mandated panel to review the Research and Development Labs and Centers funded by the National Institute of Education. Mrs. Kimmel was named Illinois Mother of the Year in 1977, and in the same year was awarded an Honorary Doctor of Law degree from Illinois State University. Other involvements in education have included the presidency of the Rock Island Illinois Board of Education, and a nine year board membership, and membership on the Illinois School Problems Commission.

Ruby Murchison has been a classroom teacher for twenty years, at grade levels ranging from 1 to 8. She was selected as North Carolina Teacher of the Year in 1975-76, and National Teacher of the Year in 1976. She has also been honored for Service to Education by the Council of Chief State School Officers, the Alpha Kappa Alpha Sorority Woman of the Year Award, an NAACP Achievement Award, an Encyclopedia Britannica Achievement in Life Award and a North Carolina Council of Social Studies Award, as well as numerous other awards. Among numerous other capacities, she has served on the National Council of Social Studies Board of Readers, the Presidential Scholars Commission, the North Carolina Textbook Commission, and the National PTA Board of Directors. Mrs. Murchison currently works as a special consultant for gifted and talented children to the Division for Exceptional Children of the North Carolina Department of Public Instruction. She has also published articles in the North Carolina English Journal, Today's Education and Current Events.

In the past Dr. Garet has served as a consultant to the Department of Education of the Commonwealth of Massachusetts, as a staff member of the President's Commission on Campus Unrest, and as Co-director of the Contemporary University Program of the University of South Carolina. Dr. Garet has published articles in the Journal of Research and Development in Education and the Harvard Educational Review, and was co-author of a book on the history of the National Assessment of Educational Progress. Dr. Garet, now an assistant professor at Stanford University, teaches courses in quantitative analysis and educational policy decision making.

Walter Haney received his doctorate in educational planning and evaluation from Harvard University. Previously, he worked as a high school mathematics teacher, a data analyst, a consultant to the National Institute of Education, and the Education Development Center, and as an educational researcher and writer for the Academy for Educational Development. Dr. Haney has also served as director of the Huron Institute project to provide technical assistance to the U.S. Office of Education on the national evaluation of Project Follow Through. He has published articles in Educational Leadership, the Harvard Educational Review, Curriculum Inquiry, and the Washington Post. Dr. Haney currently serves on the Board of Directors of International Voluntary Services, and the Huron Institute and as Staff Director of the National Consortium on Testing.

In this preface, we wish also to thank several individuals who generously reviewed a draft version of this report and greatly aided us in improving it. These include Dr. Paul Sandifer, Dr. Vera Meredith, Dr. Vito Perrone, Dr. Peter Cowden, Mr. Jack DeSanctis, Dr. Mary Jane Yurchak, and Professor George Madaus. Also, special thanks are owed to Mr. James Bonney and Dr. Elinor Woods who helped in preparing some of the data analyses reported in the case study, and Mrs. Norma Robbins who helped prepare the report in written form.

Finally, we wish to express appreciation to the National Consortium on Testing, under the auspices of which this study was carried out, and to the Carnegie Corporation of New York which provided funding to the Consortium which enabled us to carry out the study.

I. INTRODUCTION

1.1 Background. In the late 1970s, the nation was swept by a wave of enthusiasm for state government-sponsored minimum competency testing. By 1979, more than thirty states were reported to have instituted competency testing programs, of which sixteen were to serve as a basis for awarding high school diplomas and nineteen were intended for other purposes (Dearman and Plisko, 1979, p.92). Table 1 shows the status of minimum competency testing programs in thirty-eight states as of 1979. Amidst this enthusiasm for minimum competency testing, several observers raised questions about how it would actually operate (AFSC, 1978; Bailey, 1978; Haney & Madaus, 1978). Nevertheless, very little concrete information is yet available regarding how such programs work in practice and whether they are having the intended effect of promoting educational standards and improving learning. Because of this lack of information and out of concern for the use of educational assessment in improving learning, the National Consortium on Testing decided to undertake a case study of a competency testing program.

The state selected for study was South Carolina. There were several reasons for this choice. First, when it came to passing competency testing legislation in 1978, the Palmetto State was plainly progressive in several respects. Unlike at least some other states, South Carolina sought to institute an assessment program based on specified statewide educational objectives. Also, the program was intended to be positive rather than punitive. Instead of serving as a basis for award -- or denial -- of high school diplomas or for determining grade-to-grade promotion, the South Carolina program was oriented toward identifying and getting help to students who had not

TABLE 1: States using minimum competency testing, by government level setting standards, grade levels assessed, and expected uses of standards: 1979

States using minimum competency testing	Government level setting standards	Grade levels assessed	Expected Uses[1]					First grad. class assessed
			Grade pro-motion	H.S. grad.	Early exit	Reme-diation	Other	
Alabama	State	3, 6, 9+		x		x		1981
Arizona	State/local	8, 12		x			x	1976
Arkansas	State	3, 4, 6, 8					x	
California	State/local	4-11, 16 yr. old+	x	x	x	x		1980
Colorado	Local	9, 12		loc.opt.				
Connecticut	State/local	3, 5, 7, 9				x	x	
Delaware	State	11		x				1979
Florida	State/local	3, 5, 8, 11	x	x	x			1983
Georgia	State	4, 8, 10, 11					x	
Idaho	State	9-12		loc.opt.				1982
Illinois	Local	Local option					loc.opt.	
Indiana	Local	3, 6, 8, 10				x	x	
Kansas	State	2-4, 6, 8, 9, 11, 12					loc.opt.	
Kentucky	State/local	3, 5, 7, 8, 10, 11					x	
Louisiana	State	4, 8, 11					x	
Maine	State	8, 11					x	
Maryland	State	3, 7, 9, 11	x	x		x		
Massachusetts	Local	Local option					x	
Michigan	State	4, 7, 10					loc.opt.	
Missouri	State	8					x	
Nebraska	Local	5+					x	
Nevada	State	3, 6, 9, 12				x		
New Hampshire	State	4, 8, 12					loc.opt.	
New Jersey	State	3, 6, 9-12		x		x	x	1985
New Mexico	State	Local option, 10					x	
New York	State	3, 6, 8-12		x		x		1979
North Carolina	State	1-3, 6, 9, 11		x				1980
Oklahoma	None	3, 6, 9, 12					x	
Oregon	Local	Local option		x				1978
Rhode Island	State	4, 8, 10					x	
South Carolina	State	1-3, 6, 8, 11				x	x	
Tenneessee	State/local	4-6, 8, 11, 12		x		x	x	1982
Texas	Not reported	3, 5, 9+				x		
Utah	Local	Local option		x				1980
Vermont	State	K-12		x			x	1981
Virginia	State/local	K-6, 9-12		x				1981
Washington	Local	4, 8					loc.opt.	
Wyoming	Local	Local option		x				

1. In most States, uses of standards will be phased in and are not yet in effect.

SOURCE: Education Commission of the States, Department of Research and Information, States Activity -- Minimum Competency Testing, 1980, forthcoming. As summarized in, Dearman, N.B. & Plisko, V.W. The Condition of Education 1980 Edition, Wash. D.C.: USGPO, 1980, p.69.

attained the levels of skill mastery which "each student is expected to have attained at the various grades in kindergarten through grade twelve."[1] In this light the South Carolina program was designed to be implemented sequentially starting at the kindergarten level and gradually, over a period of seven years, extending to the upper-grade levels. This sort of early, sequential approach was precisely what was later suggested by a special panel of the National Academy of Education in its critical review of minimum competency testing programs generally (Bailey, 1978). Perhaps symbolic of these special features is that the South Carolina Program is called a "Basic Skills Assessment Program" (BSAP) rather than a minimum competency testing program. This semantic distinction may seem merely symbolic, but the fact that education officials in South Carolina are quick to remind visitors of it clearly demonstrates that they regard it as important.

Despite its unusual features, the BSAP in South Carolina had not escaped concerns about potential negative effects. Questions have been raised, for example, (Ramsbotham, 1980) about possible detrimental consequences for poor and minority children, and about whether sufficient attention has been given to the remedial instruction which is assumed to be provided to students who initially do poorly on the basic skills assessments. Although such questions have been raised regarding the South Carolina program, no court cases have been initiated as a result of such concerns in South Carolina as has happened in Florida and North Carolina.

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1. Basic Skills Assessment Act, (hereafter refered to as BSAA), Section 1A.

On August 21, 1979, Consortium President Vito Perrone wrote to Dr. Charlie Williams, South Carolina's State Superintendent of Public Instruction, to express the Consortium's interest in conducting a case study of the BSAP. He wrote:

> The South Carolina plan to engage in an assessment program in kindergarten and grade one is of particular interest to the Consortium because it seems responsive to the concerns expressed by some educators that assessment programs should not be relegated simply to the high school years. As you know, the National Academy of Education panel convened in 1978 made this observation with regard to competency testing at the secondary level. As far as we know, South Carolina's assessment program starting at the kindergarten level represents a highly unusual approach to statewide assessment. (Perrone, 1979, p.2)

Superintendent Williams responded to Perrone on September 5, welcoming the Consortium's interest and suggesting that Dr. Paul Sandifer, Director of the Office of Research in the State Department of Education, could help coordinate and inform the study.

Following this welcome, the first visit to South Carolina was made in the fall of 1979 by one of the panel members, Walter Haney. Haney visited Columbia to consult with Dr. Sandifer, to gather documentary material on the BSAP, to conduct an initial round of interviews with officials in Columbia, and to begin making arrangements for the panel visit. After the available materials were reviewed and the panel members and districts to be visited selected, a weeklong visit to South Carolina was carried out in May 1980. Details of these activities are provided in Chapter 4. However, before describing the BSAP in South Carolina, and what we learned of it, let us first point out three important limitations of our inquiry.

1.2 Three Caveats. First, the BSAP has been designed to be phased in over a period of seven years. In the 1979-80 school year the only portion of the program to be implemented was first-grade readiness testing. Thus our case study focused primarily on that aspect of the program. Yet even this segment of the program is in a state of flux and refinement: some of its features have been or are scheduled to be changed. Thus, this case study was not intended, nor should it be construed, to be an overall assessment of the BSAP program in South Carolina, nor even the readiness testing portion of it. The case study is more appropriately viewed as a snapshot of what the program was in 1979-80 and how people in South Carolina perceived it in the spring of 1980.

Second, even this snapshot is incomplete. We visited only six of South Carolina's 92 school districts. Though these six were selected to span a range of districts, we have no guarantee that they nor the roughly one hundred people in these districts with whom we talked are strictly representative of all of South Carolina's school districts, or of other people's views of the BSAP and the readiness testing which is a part of it. Where possible, we have tried to describe the BSAP and the readiness testing statewide through documentary evidence, but for many of the issues raised by people with whom we talked, there is simply no relevant documentary evidence available.

Third, this report is mainly the product of four people's learning and understanding of the BSAP. Though our understanding of it has obviously been aided immensely by the generosity of many South Carolinians in talking with us and providing us with information, the report should not be seen as necessarily representing the opinions of anyone other than ourselves.

Specifically, though the case study was organized under the auspices of the National Consortium on Testing, with funding from the Carnegie Corporation of New York and with the cooperation of officials in the South Carolina State Department of Education, none of these people or organizations are responsible for what is written here.

Despite these caveats, we hope that this case study will be informative. Though the South Carolina BSAP clearly differs from competency testing programs in other states, we think that much of what we learned may prove relevant to other programs in other places. Also, we hope that our observations and suggestions will be helpful to those in South Carolina who are working to improve teaching and learning for the children of that state. If our report has any such value, it derives in large measure from the openness and the cordial hospitality with which we were welcomed everywhere we went in South Carolina.

1.3 Organization of Report. The remainder of this report is organized as follows. Chapter 2 describes the background and development of the Basic Skills Assessment Program. Chapter 3 describes implementation of the program, and specifically the first-grade readiness testing -- the only portion of the BSAP that had been implemented statewide when we visited South Carolina. Chapter 4 describes our visit to South Carolina and summarizes what we learned from people in the six districts visited. The final chapter, 5, contains our overall conclusions. While we offer several suggestions specifically directed toward the South Carolina program, some of our general conclusions will, we hope, help illuminate the educational role of minimum competency testing programs more generally.

II. BACKGROUND AND DEVELOPMENT OF THE SOUTH CAROLINA BASIC SKILLS ASSESSMENT PROGRAM

As already suggested, the Basic Skills Assessment Program (BSAP) in South Carolina did not emerge in a vacuum. Rather it was part of a movement which arose rapidly in the late 1970s to institute systematic testing as a means of helping to guarantee that students in the public schools would learn at least certain minimum skills or competencies. Therefore in this chapter we first describe the competency testing context in which the BSAP developed. But since the South Carolina program was by no means simply a reproduction of other states' competency testing programs, we also need to recount the local context from which it emerged. After describing these two contexts, we turn in section 2.3 to describe the Basic Skills Assessment Act (BSAA) passed in July 1978 which legally mandated the BSAP, as well as general developments leading to passage of the BSAA. In the last part of Chapter 2 we describe the schedule for implementation of the BSAP, before turning in Chapter 3 to recount how the program, and particularly the readiness screening portion of it, are being implemented.

2.1 The Competency Testing Context. Minimum competency testing became something of a craze in the late 1970s. In essence the notion was fairly simple. The idea was that responsible government agencies should institute programs of systematic assessment to help ensure that all public school students attained at least minimum levels of the competence and skills that schooling seeks to impart. The idea behind competency testing is of course not new to American education. Systematic testing or assessment as

a means of improving learning in American schools had been regularly advanced at least since the 1890s and Joseph Rice's spelling surveys. Since then many sorts of testing have influenced educational practices. In the early part of this century, ability grouping was often based on intelligence test results. Standardized tests became a regular part of the college admissions process after the introduction of the Scholastic Aptitude Test in 1926. In the 1940s and 1950s standardized tests were a regular tool of educational researchers seeking to understand the learning process and to improve schooling. In the 1960s the National Assessment of Educational Progress and various state assessment programs were instituted as means of checking on the educational health of the nation's schools and the learning of its students.

Despite this background, minimum competency testing in the 1970s represented a new development in the history of efforts to use systematic assessment to improve teaching and learning. Between 1969 and 1979, more than 30 states mandated some form of minimum competency testing, promulgated either by state legislatures or by state boards of education. Table 2, adapted from a recent NIE-sponsored study indicates some of the broad characteristics of 31 state minimum competency testing programs.[1]

To help clarify how the South Carolina program compares with these broader developments, let us briefly describe how this program generally

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1. The NIE-sponsored report also describes 20 district-level competency testing programs. However since the topic of our case study is a state level program we will not describe locally mandated programs. Also, it should be noted that seven states listed in Table 1 are not listed in Table 2 (Arkansas, Colorado, Indiana, Oklahoma, Texas, Washington and Wyoming).

TABLE 2: Characteristics of State Minimum Competency Testing Programs

Program	Policy: Initial Mandate: Legislative (L) or State Board (B)	Policy: Date of Initial Mandate	Policy: Date of Completed Implementation	Policy: Years from Initial Mandate to Scheduled Implementation	Use of Test Results: For Students: High School Diploma	Special Recognition Diploma	Grade Promotion	Mandatory Remediation	For Programs: Optional Remediation	Mandated Curriculum Changes	Emphasis: Academic Skills	Life Skills	Both	Source: State	Local Districts	Both	Competencies: Specific Area in at Least One Grade: Reading	Math	Writing	Speaking	Listening	Other	Grade Level Tested (at least one within grade span): K-3	4-6	7-8	9-12
Alabama	B	1977	1980	3		?			+				+	+			+	+	+				+	+		+
Arizona	L	1972	1978	6	+		+				+				+		*	*	*				*	*	*	*
California	L	1976	1979	3	+			+					+		+		+	+	+						+	*
Connecticut	L	1978	1980	2				+		+	+			+	+		+	+	+				+	+	+	+
Delaware	B	1972	1981	9							+			+			+	+	+				+	+	+	+
Florida	L	1971	1983	12	+			+					+	+			+	+	+				+	+	+	+
Georgia	B	1971	1978	7					+	+		+				+	+	+				+			+	+
Idaho	B	1977	1979	2		+					+			+			+	+					+			+
Illinois	L	1978	1980	2	+	*	+	*	*				+		+		+	+	+	+	+	+				+
Kansas	L	1978	1980	2					+				+	+			+	+					+	+	+	+
Kentucky	L	1978	1979	1					+	+	+			+			+	+	+			+	+	+	+	+
Louisiana	L	1976	1980	4			*			+	+			+				+	+			+			+	+
Maine	L	1978	1980	2					*		+			+			+	+	+						+	+
Maryland	B	1972	1986	14	+			+					+	+			+	+	+			+				+
Massachusetts	B	1978	1981	3					+				+	+	+		+	+	+	+	+		+	+	*	+
Michigan	B	1969	1979	10					+		+						+	+				+			+	+
Missouri	B	1978	1979	1					*				+	+			+	+				+			+	*
Nebraska	B	1975	1975	0					+		+			+			*	*				*			*	*
Nevada	L	1977	1978	1	+				*		+			+			+	+	+			+	+	+		+
New Hampshire	B	1977	1984	7							+			+			+	+	+			+			+	+
New Jersey	L	1976	1978	2				+		+	+			+			+	+					+	+		+
New Mexico	B	1976	1979	3		+		+					+	+			+	+	+							+
New York	B	1975	1981	6	+				+		+						+	+	+				+	+	*	+
North Carolina	L	1977	1979	2	+			+					+	+			+	+								+
Oregon	B	1972	1976	4	+				*				+		+		+	+	+	+	+	+			*	+
Rhode Island	B	1978	1981	3									+	+			+	+				+			+	+
South Carolina	L	1978	1985	7				+					+	+			+	+	+			+	+	+	+	+
Tennessee	B	1977	1981	4	+				+		+			+			+	+				+			+	+
Utah	B	1977	1980	3	+				+				+		+		+	+	+	+	+	+			*	+
Vermont	B	1975	1979	4	+				*				+	+			+	+	+	+	+	+				+
Virginia	L	1975	1980	5	+			+					+		+		+	+				+	+	+		+
TOTALS	14-L 17-B	Range 1969- 1978	Range 1979- 1986	Avr. 4.4	12+ 1*	2+ 1* 1?	1+ 2*	5+ 1*	10+ 6*	5+	14+	1+	16+	24+	8+	1+	28+ 2*	29+ 2*	20+ 1*	5+	5+	17+ 1*	12+ 1*	19+ 2*	14+ 7*	28+ 3*

+ = Characteristic of Program * = Optional/Conditional ? = Undecided

Source: Adapted from Gorth, W. et al. A Study of Minimum Competency Testing Programs Final Typology Report, Amherst, MA: National Evaluation Systems, n.d. [1980], pp. 2-3

resembles and differs from the other 30 state mandated programs. Like programs in thirteen other states, the South Carolina program was mandated directly through legislative action. The South Carolina legislation was enacted in Columbia in 1978, the same year in which competency programs were mandated in eight other states. In South Carolina, however, the BSAP was designed to be implemented over a period of seven years, while in most states programs were to be implemented in five years or less. In a dozen states, competency test results were tied directly to high-school graduation requirements, while in South Carolina, the main intended use of the test results was to provide remediation for students who were not attaining basic skills. Nevertheless, as we will point out when we describe the South Carolina legislation in detail in section 2.3, there is some uncertainty over whether or how the South Carolina program may eventually be tied to high-school graduation requirements. Like programs in most other states the South Carolina one focuses on the basic skills of reading, writing, and math; but unlike programs in many other states, it gives attention to other skills, including what are called life skills, as opposed to academic skills, in the NIE report.

The South Carolina program is relatively unusual in that it focuses heavily on assessment at early grade levels. As indicated in Table 2 only eleven other state programs require testing or assessment at the kindergarten to grade 3 range. What is not shown in Table 2 is that only two or three other states apparently have mandated assessment as early as the first grade as is required under the BSAA.[1]

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1. Table 1 indicated that three other states (NC, VT, and VA) mandated competency testing as early as first grade. In VT grade levels to be tested are left to the discretion of the local education agency and in NC and in VA, testing is not mandated as early as entry into first grade. (Gorth, et al., 1979a)

In some ways, then, the South Carolina program is similar to those in other states, and in some ways different. In a moment we will describe the South Carolina program in far more detail than provided in Table 2. What we would point out here, however, is that the manner in which the South Carolina program differs from those of other states is of far more than merely academic interest.

The minimum competency testing program in Florida, for example, provides a contrast which helps to illustrate the potential importance of some of the features of the South Carolina program. The Florida program provides a relevant contrast to that of South Carolina for two reasons. First, because of publicity concerning litigation over the Florida program, it is probably the single most widely known state minimum competency testing program in the country. Second, when we visited South Carolina, people in Columbia as well as in local districts several times contrasted the South Carolina program with the one in Florida, as a means of illustrating its virtues. As indicated in Table 2, the Florida program -- which, like that in South Carolina, was originally mandated in 1971 -- encompasses a range of grade levels. The most obvious difference in the Florida program is that it is to be used as a basis for awarding the high school diploma. It was this feature of the Florida minimum competency testing program that drew a major legal challenge in the case of Debra P. v. Turlington. This case was brought in federal court on behalf of ten black students and others who were to be denied diplomas after failing Florida's functional literacy test. Data presented during the trial indicated that had the diploma sanction been enforced, 20 percent of black high-school seniors would have

been denied diplomas, as compared with only 2 percent of white seniors. After a trial of several weeks, the federal judge in the case ruled that Florida's use of the test in awarding high school diplomas was unconstitutional because it perpetuated the effects of past discrimination and was implemented without an adequate phase-in period.[1]

The point of this contrast is simply that the South Carolina BSAP, with its emphasis on remediation and gradual phase-in, is clearly more progressive and far less suspect legally than the Florida program which was successfully challenged in the Debra P. case.

2.2 The South Carolina Context. The South Carolina program was, of course, not modeled after the Florida competency testing program, nor was it merely a product of the nationwide enthusiasm for minimum competency testing in the late 1970s. Rather it was motivated by specific concerns of legislators, educators and citizens of South Carolina. Hence before describing the Basic Skills Assessment Act and Program in detail, let us briefly describe the context and background from which the South Carolina BSAP emerged.

South Carolina. In South Carolina, the land slopes gradually from the Blue Ridge Mountains in the Northwest, through the pine forests and farmlands of the midlands, to the semi-tropical lowlands and beaches of the Southeast Atlantic coast. In land the state is solidly shaped, approximately 260 miles long and 200 miles wide. Its thirty thousand square miles ranks it fortieth among states in the Union. In population the state ranked

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1. Debra P. v. Turlington No. 78-892 c.v. T-C United States District Court N.D. Florida. July 12, 1979 474 Federal Supplement 244-267. This court case is briefly described in Gorth, et al., 1979a. Also, it should be noted that the initial decision is now under appeal.

twenty-fifth in 1978 with approximately 2,900,000 people. As of 1975, the population was estimated to be 69% white and 31% black.

In economy, South Carolina has a range of industries including tourism, textiles, chemicals and manufacturing. As in much of the South, there has been significant economic growth in South Carolina in the last decade. The per capita income in 1970 was $2,950, or 76% of the national average. In 1978 this figure had risen to $6,290 or 80% of the national average.[1]

Education is a major enterprise in the Palmetto State. In 1979, the state had roughly 920 elementary, and 370 secondary schools, and 56 institutions of higher education. In the past decade, enrollment in public elementary and secondary schools in South Carolina has fallen and risen, as follows:

Year	Enrollment (in thousands)[2]
fall 1968	649
1970	638
1972	624
1974	627
1976	640

Public school enrollment in recent years has been 58% white and 41% black.[3]

In an apparent reflection of increasing per capita income in South Carolina, per pupil expenditures for public elementary and secondary education increased significantly in the early 1970s:

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1. These demographic data cited are drawn from Delury, 1980, pp.93, 202-3, 458, 697.
2. Data drawn from Golladay, 1977, p.30, and Grant & Lind, 1979, p.45.
3. Grant & Lind, 1979, p.45, give these figures for fall 1976. Hill (1980), p.57, reports a statewide total of 41.5% of public school district enrollment classified as nonwhite. The proportion of nonwhite enrollment which is not black is very small.

School Year	Total Expenditures Per Pupil[1] In Dollars	As % of National Average
1969-70	645	70%
1970-71	753	75%
1972-73	847	72%
1973-74	983	77%
1974-75	1125	79%

As with economic growth, however, educational expenditures have not been uniform across the state. From 1970 to 1976, the largest increase in per capita personal income was in Richland County, seat of the state capital -- from 115% of statewide per capita personal income to 120%.[2] Not surprisingly, there have been considerable inequalities in school financing in different parts of the state. In the 1976-77 school year the richest district in the state was spending more than $1200 per pupil while the poorest was spending under $800.[3] Such disparities in school financing are not unusual. Indeed according to statistics from the National Center for Educational Statistics, in 1977 South Carolina ranked only twenty-eighth among the states in terms of within-state disparities in per pupil expenditures.[4]

Education Finance Act of 1977. Nevertheless, it was concern for inequalities in financing public education in South Carolina which led to passage of the Education Finance Act (EFA) of 1977 by the South Carolina General Assembly. As we will explain in a moment this legislation contributed directly to the passage of the **Basic Skills Assessment** Act of 1978.

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1. Golladay, 1976, p.154.
2. Hill, 1979, p.67.
3. Dearman & Plisko, 1979, p.164.
4. Dearman & Plisko, 1979, p.167.

However, since many of the people with whom we talked in South Carolina cited the EFA of 1977 as an even more important piece of education legislation than the BSAA, and because some of its provisions deal with issues we will raise later, let us briefly describe the EFA.

South Carolina was one of 25 states to enact educational finance reform legislation in the 1970s. The EFA in South Carolina is a type of educational finance reform known as a high level foundation program. This type of equalization program typically guarantees a foundation level of per pupil expenditure, together with a minimum tax rate that each school district must levy for education purposes. South Carolina State Superintendent of Education Charlie Williams has written that the EFA of 1977 "will be respected historically as one of the most monumental laws ever enacted in behalf of public education in South Carolina".[1] The purposes of the EFA were seven:

> (1) To guarantee to each student in the public schools of South Carolina the availability of at least minimum educational programs and services appropriate to his needs, and which are substantially equal to those available to other students with similar needs and reasonably comparable from a program standpoint to those students of all other classifications, notwithstanding geographic differences and varying local economic factors.
>
> (2) To encourage school district initiative in seeking more effective and efficient means of achieving the goals of the various programs.
>
> (3) To establish a procedure for the distribution of a specified portion of the state education funds so as to ensure that the funds are provided on the basis of need to the extent set forth by this chapter in order to quarantee a minimum level of funding for each weighted pupil unit in the State.

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1. South Carolina General Assembly, 1980, Introduction.

> (4) To make it possible for each school district to provide the defined minimum program within approximately five years from July 2, 1978 and to do so with an equal local tax effort.
>
> (5) To establish a reasonable balance between the portion of the funds to be paid by the State and the portion of the funds to be paid by the districts collectively in support of the foundation program. For the initial stage of this program the proportionate state share of the funds for this program shall be approximately seventy percent statewide and the remainder of the program shall be financed from local revenue sources.
>
> (6) To require each local school district to contribute its fair share to the required local effort, which is to be in direct proportion to its relative taxpaying ability.
>
> (7) To ensure that tax dollars spent in public schools are utilized effectively and to ensure that adequate programs serve all children of the State.[1]

The procedures for distributing state funds under the EFA are quite complex. As one superintendent suggested in commenting on the EFA, "You almost have to be a Philadelphia lawyer to keep up with the details" (p.219). Hence, rather than trying to describe the EFA in detail, let us simply note that this Act also contains a provision stipulating that the State Department of Education shall

> develop or select and field test a competency based student assessment program in the basic skill area of reading and mathematics utilizing criterion reference tests.(Section 59-20-60, 5d.)

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1. South Carolina General Assembly, 1980, p.5.

Special Joint Education Committee on Competency. This mandate together with several other initiatives,[1] led to the establishment of a special committee to study minimal competency in the basic skills. The committee, mandated under General Assembly Act 219 of 1977, was chaired by South Carolina Lt. Governor Brantley Harvey and composed of nine legislators,[2] from both sides of the Assembly, nine non-legislative members, and three ex-officio members.

The Special Committee heard testimony in late summer and fall of 1977 from a variety of individuals and issued a thirty page report about six months after it began work (Committee, n.d.). The report indicates that the committee's deliberations were influenced by competency testing activities in other parts of the country,[3] but also, and apparently more importantly, by specific concerns of South Carolinians. Five studies were cited in the committee report as evidence of these concerns:

- A 1975 poll of citizen attitudes about public education in South Carolina showed that, when asked which programs should receive more attention at the elementary school levels, 71% of the respondents indicated "Teaching Students the Skills of Reading and Writing."

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1. Two recent accounts of the background to the BSAA (Ramsbotham, 1980, pp. 83-84 and Gorth, 1979a, pp. 621-622) give slightly different accounts of the early background to the BSAA of 1978. However, since the Special Committee seems to have had the clearest influence on passage of the BSAA, we will recount earlier influences leading to passage of the BSAA, in terms of how they were reported in the committee report, described below.

2. One legislative member was Representative Joseph Murray who was one of two black representatives to introduce legislation in 1977 which would have required students to pass tests to be eligible for grade promotion. Although this bill did not pass, according to one account "it helped generate the legislative support necessary to pass Act 219" of 1977 which created the Special Joint Education Committee. (Gorth, 1979a, p.622)

3. Competency testing programs in Gary, Indiana and the state of Oregon are specifically referred to in the Committee report, and a summary of "State Activity Minimal Competency Testing" by Chris Pipho of the Education Commission of the States is also reprinted in an appendix.

- A 1976 survey by the South Carolina Education Association of attitudes of 12th grade students, educators, and community leaders in education toward the high schools in South Carolina concluded that "only one problem -- students unable to read or do math effectively -- stands out as a major problem for all groups."

- A South Carolina P.T.A. survey of its local units indicated that 94% of respondents agreed with the statement "Concern is being expressed that too many young people leave our schools unable to read, write and compute adequately to get along in the world."

- A 1975 task force to evaluate the effectiveness of the high school program in the public schools of South Carolina, appointed by then State Superintendent of Education Cyril Busbee, recommended the establishment of a minimum achievement level in the basic skills as a requirement for receiving the state high-school diploma.

- An analysis of overall standardized achievement test scores in reading, language and mathematics indicated that the average score of nonwhite students in South Carolina was 1.3 grade equivalent units lower than the national average in fourth grade, 2.4 grade equivalent units lower in seventh grade, and 3.6 units lower in the eleventh grade, even though white students' scores at all grade levels generally were at or above national norms.[1]

After reviewing this evidence and hearing testimony, the Special Committee issued its recommendations to the South Carolina General Assembly in the form of a five-page legislative proposal. Since the BSAA passed in 1978 closely resembled these recommendations, we will not recount them here, but merely note the broader goals they aimed to serve. The Committee report stated:

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1 These findings are summarized from the Committee (n.d.), pp. 6-9, 13. With respect to the last finding it should be noted that the committee report went on to cite 1977 achievement test data for Title I students as an indication that "the difference in test scores is not a function of racial categories but is instead a function of socio-ecomomic categories" (p.16).

> The recommendations of the committee are designed to attack the problem of students performing poorly.
>
> The goal of these recommendations is not that of labeling children, teachers or schools. The main purpose of these recommendations is to provide for the early detection of student deficiencies and to insure that our school system gives appropriate instruction to correct any deficiencies that are detected before they are compounded as a student moves into higher grades. These recommendations are also designed to restore credibility to the State High School Diploma, so that students who earn the diploma will receive a meaningful award, and so that parents, employers and colleges will know that a student has had to demonstrate competency in certain basic skills before being awarded the diploma. (Committee, n.d., p.16)

In addition to setting out general goals and making a legislative proposal, the Committee documented its rationale for each paragraph of the proposal. While much of that rationale is noteworthy, let us here note simply why it was that the proposal emphasized assessments in the early grades -- four times in grades 1-3, but only three times thereafter -- since that is the feature of the South Carolina BSAP which distinguishes it most clearly from other state minimum competency testing programs. The Committee report explained:

> The reason for the frequency of the tests -- they are to be given at the end of grades 1, 2 and 3 -- is the hope of preventing an insurmountable problem from developing in these very early and most important years.
>
> The results of the test must be used for diagnosis of students' deficiencies and providing instruction designed to at least bring the student up to the minimum statewide standard established for a particular grade, and can only be used for this purpose. This means that the decision by a teacher or principal to retain a child in one of these grades cannot be based solely on the test results. (Committee, n.d., p.20)

Without enlarging further on the Special Committee's rationale, let us turn now to the legislation that actually gave birth to the BSAP in South Carolina.

2.3 The Basic Skills Assessment Act. On the second day of August, 1978, South Carolina Governor James B. Edwards signed, and thereby enacted into law, a bill known as the Basic Skills Assessment Act (BSAA). While the legislation proposed by the Special Committee had only five sections, the BSAA of 1978 contained ten. These ten sections of the South Carolina legislation are summarized in Table 3.

Although the number of sections in the BSAA doubled between the Special Committee's recommendations and actual passage of the bill in the summer of 1978, the obvious influence of the Committee should not be underestimated. The heart of the BSAA, namely sections 1, 2, and 4, was modeled closely after the recommendations of the Special Committee. Nevertheless, the legislation, as passed and signed into law in August 1978, represented several important departures from the Special Committee recommendations. In addition to six sections that were altogether new, as noted in Table 3, there were four major substantive changes in the law enacted.[1]

First, while the recommended legislation called for collection of base-line data on the eleventh-grade adult functional competency test only through 1985-86, the BSAA as enacted extended this period three years until 1988-89. Second, a subsection of the proposed legislation, specifying 1985-86 as the date for implementing the adult competency test as one of the conditions for receiving a high-school diploma in South Carolina, was completely dropped from the BSAA. Instead the BSAA suggested simply, though somewhat ambiguously, that "the State Board of Education shall

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1. The reason that six sections of the BSAA of 1978 were altogether new, even though the Committee's recommended legislation had five sections and the BSAA ten, is that the committee's section 4 was transformed into the BSAA's section 1A.

TABLE 3: Summary of South Carolina Basic Skills Assessment Act of 1978

Section	Title and Summary
1	Basic Skills Assessment Program Established. Mandates the State Board of Education to: 1) establish statewide educational objectives in the basic skills with minimum standards of student achievement for kindergarten through grade twelve; 2) establish and provide for the administration of a basic skills assessment program beginning with a readiness test at entry into grade one, continuing with a criterion-referenced assessment of reading and math skills in grades one, two and three, and criterion-referenced tests of reading, math, and writing in grades six and eight, and a test of adult functional competency in grade eleven; 3) use utmost care to eliminate cultural bias in tests administered; and 4) select or develop and field test instructional programs designed to raise student performance to statewide standards.
1 A	S.C. Basic Skills Advisory Commission. Establishes a fifteen member advisory commission to provide recommendations to the Governor, State Board of Education and State Board of Education on Implementation of the BSAA.
2	School Districts to Participate. Requires local school boards and districts to: 1) participate in BSAP; 2) assure continuous assessment of students' progress from kindergarten to grade 12, in relation to statewide minimum standards; 3) provide inservice training to local personnel to insure efficient and effective instruction; 4) use basic skills assessment results to help in diagnosis of student deficiencies; 5) provide instruction to bring student performance up to statewide minimum standards; and 6) to report test results to parents.
3*	Standards for Handicapped. Permits State Board of Education to develop separate standards and tests and special diploma for handicapped students, as defined by state and federal law and determined by individual educational programs required by PL 94-142.
4	Time Table. Requires State Department of Education to implement BSAP on or before schedule extending from 1978-79 school year to 1984-85.
5*	Payment. Stipulates that costs relating to BSAA are to be paid under EFA of 1977 as implemented under annual general appropriations act.
6*	Discounts. Directs State Department of Education to take advantage of discounts on tests, textbooks, and materials.

TABLE 3 (cont.)

7*	Notice of Deficiencies. Requires that parents or guardians be notified of student deficiencies in meeting minimum competency standards and that notice of deficiencies be filed in records of students concerned.
8*	Curriculum to Be Evaluated. Requires Department of Education to monitor and evaluate curriculum and instructional methods in each school to ensure compliance with act.
9*	Make up Tests. Authorizes students absent with valid excuse to take tests missed as soon as possible after return.
10	Time Effective. Stipulates that act will take effect upon approval by Governor.

* Asterisks denote sections of the BSAA which were altogether new in terms of legislative recommendations made by the Special Committee.

use the baseline data [collected on the grade-eleven test collected between 1981-82 and 1988-89] for the purpose of determining the high school credentials to be awarded students not meeting the minimum achievement scores." Third, the BSAA strengthened the requirements for notification of parents or guardians of students with "deficiencies in terms of falling below minimum standards" (specifically added was the requirement for notification in writing). Fourth, the responsibilities of the State Department of Education were increased to include not only establishment of statewide education objectives, development and administration of the assessment program, rendering advice and aid to school districts concerning their curricula and assessment programs, but also the responsibility to "select or develop and field test instructional programs . . . to raise student performance up to statewide standards" (BSAA, p.3).

Ramsbotham (1980) gives the following account of the legislative evolution of the BSAA in 1978:

> Competency testing was a major issue in the 1978 legislative session, as a basic skills assessment program proposed by the Special Joint Education Committee was heatedly debated over a six month period. The most controversial aspect of the legislative proposal was its requirement that satisfactory performance on a functional literacy test be a condition for receiving a high school diploma, beginning in 1985-86.
>
> The bill passed in the House with the graduation requirement included although not without strong opposition from some members of the Black Caucus. (Two members of the Caucus supported the bill, nine opposed it.) The bill was amended in the House to delay the graduation requirement until 1989-90. To insure passage of the bill in the Senate, sponsors agreed to drop the exit test provision. (p.84)

Beyond this account, we have no special insight into how and why the Committee recommendation was transformed in the BSAA, enacted in law

in the summer of 1978. Nevertheless, as we will point out in Chapter 4, the schedule for implementing the legislation and the question of consequences flowing from the Basic Skills Assessments were both points of concern among the people with whom we talked.

2.4 Schedule for Implementation. The schedule for implementing the BSAA was specified directly in the legislation, as follows:

> 1978-79 (a) Identification of basic skills objectives.
> (b) Selection of readiness test for grade one.
> 1979-80 (a) Test development, field testing and test revision (grades 1 through 3, 6 and 8).
> (b) Administration of readiness test -- all students, grade one.
> 1980-81 (a) Administration of tests, baseline data (first grade readiness and grades 1 through 3, 6 and 8).
> (b) Development or selection and field testing of eleventh grade test.
> (c) Begin field test of basic instructional programs and materials . . . .
> 1981-82 (a) Administration of tests (first grade readiness and grades 1 through 3,6 and 8).
> (b) Administration of eleventh grade test, collection of baseline data.
> (c) Continued testing of basic instructional programs and materials as mandated in Section 1 (b).
> (d) Field test basic instructional programs and materials.
> 1982-83 (a) Administration of all tests.
> (b) Continuation of field test programs and materials.
> 1983-84 and subsequent years
> (a) Administration of all tests.
> (b) Continuation of field test programs and materials.
> 1984-85 Completion of field test programs and materials.
> (BSAA, pp.5-6)

The main point to be noted with respect to this schedule is that when we visited South Carolina in the spring of 1980, the BSAP was in only the second year of this seven-year schedule of implementation. The reference to 1988-89 by Ramsbotham pertains only to the end of the period for collecting baseline data on the grade-eleven adult functional competency test,

which is to be used, according to the BSAA by the Department of Education in providing "assistance to those schools or districts in which the data indicates that program adjustment or modification is most needed due to inordinate numbers of children not passing the test" (p.2). Also, although the Special Committee's recommendation that passage of the eleventh-grade test be made a condition for receiving a high school diploma (Section 1 in the Committee proposal) was dropped during the legislative process, the BSAA does stipulate that "the State Board of Education shall use the baseline data [on the grade eleven test, gathered between 1981-82 and 1988-89] for the purpose of determining the high school credentials to be awarded students not meeting the minimum achievement scores" (p.2).

III IMPLEMENTATION OF THE BASIC SKILLS ASSESSMENT PROGRAM

As suggested in the schedule contained in the BSAA, four basic provisions of this legislation had been implemented by the end of the 1979-80 school year:

(1) Statewide basic skills objectives were identified;
(2) A readiness test for grade one had been selected;
(3) Basic skills tests for grades 1,2,3,6 and 8 were developed, field tested and revised; and
(4) The readiness test was administered to all grade-one entering students in the state.

In this chapter let us briefly describe these developments, prior to turning in Chapter 4 to recount how they were viewed and interpreted by people with whom we talked in six local school districts.

3.1 Identification of Statewide Objectives. Statewide educational objectives for South Carolina were identified via two essentially separate processes, one for kindergarten and one for grades 1-12. Since the grades 1-12 objectives were developed, and the instruments for grades 1,2,3,6 and 8 developed and field tested, by the same independent contractor,

let us briefly describe these activities first, and postpone description of the kindergarten objectives and selection of the first-grade readiness test keyed to those objectives until section 3.3 below.

In November 1978, the South Carolina State Department of Education issued a seventy-page "Request for Proposals for Services Related to the Identification of Objectives in Reading, Mathematics and Writing, Grades 1-12, for the State of South Carolina" (RFP, 1978). The RFP noted that the statewide educational objectives were intended to serve four purposes:

> 1) To serve as a guide for the "basic skills" curriculum;
> 2) To serve as a means for measurement;
> 3) To assist in instructional diagnosis; and
> 4) To serve as a means for communicating to the public.
>
> (p.2)

The RFP continued by spelling out seven guidelines for the development of objectives; namely that the objectives should:

> 1) Represent basic skills;
> 2) Be limited to school based learning:
> 3) Be cognitive in nature;
> 4) Represent the outcomes of learning;
> 5) Represent a continuum of skill development with some overlap;
> 6) Include all levels of difficulty; and
> 7) Be measurable in some way.
>
> (pp.2-3)

The RFP went on to describe five major tasks asked of potential contractors, to be carried out under the supervision of SDE personnel.

A number of independent organizations responded to this RFP, and in late 1978, the Instructional Objectives Exchange (IOX) of Los Angeles was commissioned to carry out the six-month-long project to identify statewide objectives for grades 1-12. This project resulted in the identification of sixteen basic skills objectives common across the whole grade-span although with different levels of complexity at the different grade levels.

In a moment we will describe these sixteen objectives in detail. First, however, since it may seem odd for only sixteen common objectives to be developed for all twelve grade levels, let us describe the process and rationale which led to their identification.

After developing a framework for identification, IOX made a preliminary compilation of possible objectives.[1] Objectives were compiled from three sources. First, prior to the IOX contract, the State Department of Education invited all 92 districts in the state to submit any objectives in reading, writing and math that they had developed for their own purposes. Twenty-three districts responded to this request, and according to the IOX account, these district-submitted objectives constituted "the initial set of materials used in the preliminary compilation of state objectives" (p.3). In addition, the IOX preliminary compilation drew on a collection of educational objectives possessed by the National Assessment of Educational Progress, and on "sets of basic skills objectives secured during February 1979 from thirty state departments of education in response to a request . . . " (p.3). IOX analyzed all these basic skills objectives and concluded that, while "there was substantial agreement in the skill and content emphasis of the various objectives collections," there was "considerable diversity" in the form in which objectives were stated. IOX's strategy for dealing with this diversity was to formulate "objectives which were broad in scope, yet still measurable" (p.4). The IOX report described four factors as motivating this strategy. First, it was argued that by focusing on a manageable number of broad-scope objectives, "Teachers would have a reasonable number of major instructional

1. This account is summarized from the IOX Final Report (1979) on the objectives identification project. Also, it should be noted that in carrying out the activities described, IOX was working under the supervision and control of the SDE.

targets to which to attend, and those targets would constitute a truly powerful set of basic skills aims" (p.4). Second, it was reasoned that broad-scope objectives would allow the employment of "a sufficient number of test items per objective" when it came to measuring attainment of objectives. Third, objectives were "deliberately selected so that, with effective instruction, they could be achieved." Fourth, "an effort was made to isolate essentially irreducible (that is, non-combinable) skills which could be ongoing aims for teachers in grades one through twelve."

Applying this rationale and "after intensive sifting, sorting and revision," IOX derived 16 preliminary "continuing objectives: six in reading, and five each in writing and math," which were summarized as follows:

Reading

Decoding and word meaning
Details
Main idea
Reference usage
Inference
Analyses of literature

Writing

Handwriting
Mechanics
Word usage
Sentence formation
Composition

Mathematics

Concepts
Operations
Measurement
Geometry
Problem solving

The second stage in the identification of objectives was a review of the 16 preliminary objectives by three committees of South Carolina teachers and curriculum specialists. "All committee-suggested revisions were incorporated into the preliminary state objectives" (p. 6). The third stage was submission of a revised version of the 16 objectives to "all 1,096 schools in South Carolina, offering instruction in any of the grades one through twelve" (p. 7). Each school was asked to rate each objective at each grade level in terms of:

> (1) its importance, (2) whether it was currently taught, (3) the estimated instructional time that should be devoted to the objective and (4) whether there was any presence of bias in the objective as illustrated in the suggested measurement strategy that accompanied the objective. (p. 7)

In response to this inquiry, 707 ratings (or 65%) were returned. The IOX account suggests, nevertheless, that "over 18,000 teachers were represented by the review forms returned" (p. 8). IOX summarized the school review ratings as follows:

- With respect to importance, consideration of the data revealed a highly coherent set of preferences for teachers across the state. The grade-to-grade shifts in estimates of importance were predictable . . . [for example, decoding and word meaning were rated very highly in the early grades, but less so in the high school grades].

- For the most part estimates of instructional time paralleled the importance ratings.

- The proportions of respondents registering concerns about bias . . . were, for the most part extremely small . . . . Comments all viewed bias as resulting from differences in students' backgrounds. The comments did not,

> however, advocate changing the objectives because of such differences among students. (pp. 8-10)[1]

Concurrently with the step outlined above, eight meetings were held during the week of April 30, 1979. Although these meetings were publicized "in local newspapers, on radio and television, and through notices sent to all South Carolina public schools," attendance was remarkably low, around 300 people altogether according to the IOX account (pp. 10-11). Moreover, "although the sessions had been organized to gather lay citizen reaction to the proposed objectives, about 75 percent of those present at each of the meetings were educators, teachers and administrators" (p. 11). At these meetings, reactions were solicited both through small-group discussion and through review forms given to each participant.

> With respect to data gathered during the regional meetings, 15 of the 16 proposed objectives received a solid vote of support from the 215 individuals supplying preference ratings. Using a five point rating scale in which 5=Essential, and 4=Highly desirable, etc., 15 objectives received average ratings well above 4.0. . . . Only the geometry objective in mathematics secured a mean preference of less than four (3.9). (p. 12)

Following these three stages of review -- by committees of teachers and curriculum specialists, by schools, and by the "public"--IOX made a final revision of the objectives and measurement strategies associated with each objective. After submission to and approval of the SDE, they were submitted to, and unanimously approved by, the Basic Skills

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1. The IOX Final Report does not provide a summary of ratings with respect to estimated instructional time that should be devoted to each of the objectives.

Advisory Commission on June 29, 1979. In July, they were submitted to the South Carolina State Board of Education, which voted unanimously to approve the proposed South Carolina Basic Skills Objectives in Reading, Wiring and Mathematics for Grades One-Twelve. The Board approval brought to a close both the initial IOX contract and one key step in the development of the South Carolina Basic Skills Assessment Program.

The sixteen Basic Skills objectives developed via this process are summarized in Table 4. They are exactly the same for all twelve grades. This may seem surprising, but it should be noted that the measurement strategies suggested as appropriate for each grade level do vary. With respect to the decoding and word-meaning objective, for example, the measurement strategy suggested for grade 1 is:

> Identifying the meanings and/or pronunciations of given words. These may be words selected from a basic sight vocabulary list; words selected to exemplify phonetic rules; root words with prefixes or suffixes added; words used in context; inflected nouns or verbs; compound words; or contractions. (SDE, Dec. 1979, p. 21)

The corresponding "measurement strategy" for grade 2 is identical except that the phrase "or words with a synonym, antonym or homonym" is added (p. 22). The corresponding strategy for grade 3 is identical to that for grade 2 except that the phrase "prefixes or suffixes added" is replaced by "one or more affixes added." Similar changes are apparent at most, but not all grade levels until, for grades 9-12, the measurement strategy

TABLE 4: Statewide Educational Objectives in Reading, Writing and Mathematics for Grades 1-12

Reading	
1	The student can use word recognition skills and can determine the meanings of words.
2	The student can accurately comprehend the details in a reading selection.
3	The student can determine the main idea of a reading selection.
4	The student can locate and utilize desired information in reference sources.
5	The student can make valid inferences about a reading selection.
6	The student can critically analyze a reading selection.
Writing	
1	The student can write legibly.
2	The student can spell, capitalize, and punctuate correctly.
3	The student can use words appropriately.
4	The student can compose sentences.
5	The student can communicate ideas in writing.
Mathematics	
1	The student can apply numerical concepts.
2	The student can compute accurately.
3	The student can apply measurement concepts.
4	The student can apply geometric concepts.
5	The student can solve problems requiring the use of mathematics.

Source: SDE, Report on the Implementation of the Basic Skills Assessment Program 1978-79 Columbia, S. C.: State Dept. of Education, December, 1979, pp. 21-51.

suggested for the decoding and word meaning objective becomes:

> Identifying the meaning of given words or terms. These may be words selected from a content field such as social studies or the sciences; terminology associated with product labels, application forms, consumer and governmental publications, and legal documents; words with one or more affixes; compound words; words with a synonym, antonym, homonym, or multiple meaning; words used connotatively; words used figuratively; or words defined by their context of origin.

While we have not attempted to study this particular stage in the development of the South Carolina Basic Skills Assessment Program in any detail, let us nevertheless offer four general comments on it. First, the South Carolina process for identifying statewide basic skills objectives seems to have been designed to be unusually open, seeking a variety of information and opinion from both within and outside the state. Second, however, despite the obvious intentions to the contrary, the process of developing the objectives seems to have engaged very few citizens of South Carolina who were not educators or educational administrators. Indeed, if one excludes the lay members of the Basic Skills Advisory Commission and if the IOX account of the development and review process is accurate, only around 75 such citizens statewide were directly involved in the process.[1]

Third is that, between the initial stage of objectives development and final approval by the State Board, review focused essentially on the

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1. This estimate is derived as follows. The only stage of the review process in which lay citizens participated directly was the public review stage. According to the IOX account, the eight public review sessions drew about 300 people, 75% of whom were educators/teachers or administrators. The remaining 25% of 300 is 75.

same 16 objectives initially identified by IOX. Such lack of fundamental revision may reflect well on the perspicacity of the IOX personnel who did the initial objectives development, but also it seems to reflect the fact that once the 16 preliminary objectives were identified, no real alternatives were prominently considered at any subsequent stage of the review process.[1] The point here is simply that the six month long objectives development process may have indicated more unanimity of opinion regarding basic skills objectives across grade levels than actually exists among the 2,900,000 citizens of South Carolina. Not that the sixteen basic skills objectives are not important, but that other ones, particularly for children of different ages may represent equally if not more important cognitive goals. By way of contrast we may note that, as indicated in Table 2, other states include speaking and listening skills in their competency testing programs. In fairness it must be said that the provision of the BSAA dealing with establishment of statewide basic skills objectives for kindergarten through grade twelve, as a result of which the objectives development project was carried out, explicitly states that "the term 'basic skills' shall include mathematics and the communication skills of reading and writing" (section 1a). Nevertheless, as will be apparent when we describe the development of statewide kindergarten objectives in section 3.3, for some very good reasons the SDE did not limit itself strictly to the reading, writing, and math formulation of basic skills at the kindergarten level.

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1. There were, of course, opportunities for alternatives to be suggested in each of the stages of review.

Our fourth observation is that the measurement strategies associated with each objective across the grade levels implicitly seem to assume some fairly specific patterns in curriculum sequence. The measurement strategies for the decoding and word meaning objective, for example, suggest that synonyms, antonyms and homonyms are introduced at grade 2; that compound words are introduced at grade 3; compound words and words selected from content fields such as social studies or the sciences at grade 4; and "terminology associated with product labels, application forms, consumer and governmental publications and legal documents" at grade 7 and above (SDE, Dec. 1979, pp. 21-31). This language of course reflects only suggested measurement strategies. The items and exercises to be used in the BSAP to assess attainment of the objectives have yet to be developed for all the grade levels. Nevertheless the suggested strategies clearly imply a sequence according to which children are or should be taught types of words and skills. A natural question with respect to such implicit curriculum sequencing is how it relates to the current curricula of the 92 school districts of South Carolina,[1] or to any particular pedagogical plan or theory.

3.2 Test Development for Grades 1,2,3,6,8 and 11. Continuing to put aside the first-grade readiness test, the next stage in the schedule of the BSAP was development of test instruments. In July 1979, the SDE issued an RFP soliciting test-development services for grades 1,2,3,6,8 and 11. Specifically the RFP sought assistance in the developing of

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1. Commenting on this point, SDE officials have suggested to us that the patterns of teacher ratings of preliminary objectives and measurement strategies indicate, at least indirectly, that the relationship to current curriculum is rather strong.

(1) criterion-referenced tests in reading and mathematics for grades 1, 2, and 3; (2) criterion-referenced tests in reading, writing and mathematics for grades 6 and 8; and an adult functional competency test for grade 11. The RFP requested development of test items relevant to eleven objectives for grades 1, 2, and 3, and 15 objectives at grades 6, 8 and 11. None of the writing objectives were to be assessed at the earlier grade levels, and at grades 6, 8 and 11 the handwriting objective was not to be assessed, although "the legibility of handwriting will be assessed and scored as part of the 'Composition Objective' for grades 6, 8 and 11" (SDE, July 1979, p. 1.21). The test development work was broken down into ten major tasks as follows (each with a number of subtests specified):

1) Development of Test Item Specifications
2) Selection or Development of Test Items, Test Item Directions Scoring Criteria
3) Field-Test Design and Sample Selection
4) Materials Preparation for Field-Test Administration
5) Field-Test Administration
6) Processing of Response Forms
7) Analysis of Field-Test Data
8) Development of Score Reports
9) Statewide Test Administration
10) Scoring and Reporting for Statewide Administration

(SDE, RFP, July 1979, p. 1.4)

For grades 1, 2, 3, 6 and 8 the first six tasks were to be accomplished during the first year of work; and the last four during the

the second year of work. For the grade-11 adult functional competency test, all tasks were scheduled for the second year of work.

Seven institutions submitted proposals in response to the RFP. Upon review, most were judged to be unacceptable for technical reasons. Of those deemed acceptable, the one selected was that of IOX, which was subsequently awarded a contract for the test development work. Since this work is underway, and since we have not attempted to follow it in any detail, we will not comment on it here, save to note one aspect of it. According to SDE officials, the test development work has been extended, apparently at the initiative of IOX, to include not just the creation of tests (and associated administration scoring and reporting procedures), but also, and more important from an educational point of view, the development of instructional activities keyed to each objective. Since this work is not yet complete, we do not know how this effort is turning out. Nevertheless, we wish simply to note that it appears to us both highly unusual and eminently sensible. If assessment programs are to have positive impact on education and learning it seems almost self-evident that attention needs to be given to instruction as well as to measurement. This is a point to which we will return later, for as we will see, the relationship between assessment and instructional practice was a prominent concern of the people with whom we talked.

3.3 Kindergarten Objectives and First Grade Readiness Test. Development of kindergarten objectives and a first-grade readiness test was handled in-house by the SDE. This was apparently necessitated mainly by the schedule specified in the BSAA, which called for selection of

the readiness test in 1978-79, and its administration to all first-grade students statewide in the fall of 1979, just 15 months after passage of the Act. In this section, we briefly recount how this was accomplished -- specifically, the development of kindergarten objectives; selection and refinement of a readiness test; and statewide administration in the fall of 1979.

Kindergarten Objectives. The development of these objectives was handled by a process quite similar to that used for later-grade objectives. The SDE provided this account:

> The kindergarten objectives were developed from objectives submitted to the Department of Education by South Carolina public school districts. The initial compilation of objectives was accomplished by a committee composed of kindergarten and first grade teachers, school district personnel, early childhood personnel from colleges and universities, and staff of the offices of General Education and Research in the State Department of Education. The initial listing of objectives was then submitted to all ninety-two (92) school districts and a sample of kindergarten and first grade teachers for their review. Based on the initial review, the objectives were revised and resubmitted to the ninety-two (92) school districts and the sample of teachers for a second review. Simultaneously with the second review by educators, the objectives were published in four newspapers for the purpose of inviting public review and reaction. Based on the public review and the second review by educators, the objectives were revised and submitted to the Basic Skills Advisory Commission for their review and recommendations. The objectives were endorsed by the Basic Skills Advisory Commission and approved by the State Board of Education on June 8, 1979. The objectives . . . are intended to provide teachers with suggestions for involving kindergarten students in meaningful developmental activities. The eighteen (18) objectives which were identified do not represent minimal skills but, instead, represent the primary components of what is considered to be a strong readiness program aimed at providing necessary concepts and skills fundamental to future success in reading, writing and mathematics.
>
> (SDE, Dec. 1979, p. 4)

This account does not, however, convey the sense of debate, discussion, and revision apparently experienced by the committee which drew up the kindergarten objectives. The committee initially attempted to organize kindergarten objectives in terms of the three basic skills mentioned in the state law, namely reading, writing, and mathematics. In the judgment of some committee members, however, this approach was unsatisfactory. According to one participant, views on this matter tended to reflect the grade level orientation of the individuals involved; those oriented toward first grade inclined more toward a basic skills focus, while those oriented toward kindergarten favored a broader developmental approach to defining kindergarten objectives. In light of his experience on this committee, one state official commented that never before had he realized the real dichotomy between approaches typical of kindergarten and those typical of first grade (p. 3). The consensus worked out by the committee was that at the kindergarten level many readiness skills are intertwined and cannot be isolated as contributing specifically to reading, writing and math skills. Fine motor skills, for example, were cited as contributing to all three: to holding a pencil for both math and writing, and to turning pages in reading. Thus, the committee agreed that at the kindergarten level objectives should not be keyed individually to reading, writing and math (p. 3).[1]

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1. This page reference, and subsequent ones given without indication of a written source, refer to field notes from our initial and panel visit to Columbia and to six local districts.

As a result, the 18 kindergarten objectives identified by the committee, and the review process described above, looked markedly different than the 16 objectives specified for grades 1-12. The kindergarten objectives together with explanations of them are given in Table 5.[1]

Selection of Readiness Test. The committee involved in developing kindergarten objectives also reviewed possible instruments to serve as the statewide readiness test. Initially, the SDE had written to about three dozen commercial test publishers seeking nominations of suitable instruments. Seven instruments were suggested as a result, but these were rejected because they did not match well with the 18 kindergarten objectives. The committee, including SDE personnel, thus reopened its search, attempting to locate a range of assessment and screening instruments. After considering fourteen such instruments, the committee settled on the individually administered Cognitive Skills Assessment Battery. Group-administered instruments were rejected, we were told, because they tended to have "inappropriate response modes." Many readiness tests require children to use a pencil to mark correct answers, for example, but it was suggested that this makes these instruments as

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1. In interviews, we were told that other objectives considered for inclusion in the kindergarten list included tactile development, and sensory development of smell and taste. Apparently these were rejected because the committee could not reach consensus that they were as important as the 18 that made up the final list. (p. 14)

TABLE 5: Statewide Kindergarten Objectives

1. The student performs tasks involving gross motor skills.

   Explanation: The student uses large muscles to coordinate eye-hand movements, eye-foot movements, and body positions in maintaining balance while performing physical activities. Demonstrations of large muscle control include activities such as marching; hopping on either foot; skipping; jumping and landing on both feet; galloping; climbing stairs while alternating feet; and bouncing, throwing, catching, and kicking a ball.

2. The student performs tasks involving fine motor skills.

   Explanation: The student uses small muscles to coordinate eye-hand movements and body positions while manipulating objects, tracing, copying, drawing, and painting. Demonstrations of eye-hand coordination include activities such as buttoning, zipping, lacing, and tying articles of clothing; folding paper; assembling puzzles; opening a book and turning the pages one at a time from front to back; building with blocks and construction toys; cutting straight and curved lines while holding scissors properly; tracing objects and symbols (for example, finger-tracing in sand or tracing wooden letters and numerals); and copying shapes, letters, own name, and numerals.

3. The student remembers visual stimuli.

   Explanation: The student recalls, after a brief lapse of time, stimuli presented visually. (The "brief lapse of time" will vary depending upon the activity.) Demonstration of visual memory involves the student's recalling by pointing to or naming one to six visual stimuli after the stimuli have been presented and removed or covered. Visual stimuli might include colors, shapes, numerals, letters, or patterns.

4. The student determines likenesses and differences in visual stimuli.

   Explanation: The student distinguishes likenesses and differences by comparing visual stimuli. Demonstrations of visual discrimination include activities such as matching identical colors; sorting objects on the basis of color; matching identical pictures; selecting the picture that is different; matching identical shapes; sorting objects on the basis of shape; assembling simple puzzles; matching objects of identical sizes; sorting on the basis of size; and matching identical symbols (numerals, letters, and words).

5. The student remembers auditory stimuli.

   Explanation: The student recalls, after a brief lapse of time, stimuli presented auditorily. (The "brief period of time" will vary depending upon the activity.) Stimuli might include sounds made by animals, people, or objects and sound patterns. Demonstrations of auditory memory include activities such as repeating sounds made by animals, objects and people; repeating rhythmic sequences; counting from 1 to 10 by rote; and repeating nursery rhymes, fingerplays, poems, and songs.

6. The student determines likenesses and differences in auditory stimuli.

   Explanation: The student distinguishes likenesses and differences by comparing sounds. Demonstrations of auditory discrimination include activities such as matching sounds made by objects, animals, or people; matching sounds according to rhythmic pattern, pitch (high-low), or volume (loud-soft); recognizing words that sound the same (for example, "dog" and "dog") and words that sound different (for example, "dog" and "doll"); matching words that rhyme (for example, "cat, "bat," and "mat"); and matching sounds at the beginning of words (for example, "boy," "ball," and "book").

7. The student communicates with others by using expressive language.

   Explanation: The student communicates with others by using a simple oral vocabulary and by expressing ideas with an expanding oral vocabulary. Vocabulary development may include naming such things as colors, parts of the body, people, animals, foods, objects, sounds, days of the week, seasons, occupations, letters, numerals, coins, and textures. Demonstrations of expression of ideas include activities such as initiating verbal communication with others, relating personal experience to classroom activities, and dictating personal experiences for teacher's recording in a written form.

8. The student is receptive of language in communicating with others.

   Explanation: The student communicates with others by listening attentively and by utilizing the information presented. Demonstrations of receptive language include activities such as listening and responding to the conversations of others; listening to and making comments about a selection read; and listening to and following directions.

9. The student expresses an interest in language.

   Explanation: The student seeks out information or initiates actions related to words or books. Demonstrations of an interest in language include behaviors such as asking the meaning of words; asking to have a story read; looking at pictures in books; and sharing books with the class.

10. The student classifies stimuli on the basis of one or more attribute(s).

    Explanation: In order to be able to classify, the student must first recognize similarities in stimuli (such as objects) with respect to some attribute or characteristic (such as size). The student must then group the stimuli according to one or more attribute(s). Demonstrations of classification include activities such as classifying objects according to color, size, or shape and classifying by functions and/or relationships such things as objects, foods, animals, or people.

11. The student compares stimuli on the basis of one or more attribute(s).

    Explanation: In order to be able to compare, the student must first recognize similarities and differences in stimuli (such as objects) with respect to some attribute or characteristic (such as size). The student must then compare the stimuli according to one or more attribute(s). Demonstrations of comparison include activities such as comparing two groups of objects using the terms more than, less than, or same as; comparing two objects according to length, height, weight, size, shape, or distance; comparing opposites or positions (for example, behind/in front of, between/beside, above/below).

12. The student sequences stimuli on the basis of one or more attribute(s).

    Explanation: In order to be able to sequence, the student must first recognize differences in stimuli (such as objects) with respect to some attributes or characteristics (such as size). The student must then order the stimuli according to one or more attribute(s). Demonstrations of sequencing include activities such as counting up to ten objects; ordering objects according to length, height, weight, or size; identifying the correct object to complete the pattern; completing an incomplete pattern or picture; retelling a short story in sequential order; arranging in correct order three pictures; and stating the sequential steps involved after completing a three-step activity.

13. The student begins to understand the concept of conservation of number.

    Explanation: The student recognizes that a group has the same number of objects regardless of the arrangement of the objects. Demonstrations of conservation of number involves the teacher presenting the student with five to ten objects and asking the student to count the objects. After the student counts the number of objects correctly, the teacher rearranges the objects and asks, "How many objects are there?" A student who responds, without recounting, that the number of objects is the same understands conservation of number.

14. The student interprets and infers on the basis of oral or illustrative selections.

    Explanation: The student demonstrates understanding of selections, for example, stories presented orally or in picture form, by interpreting or making inferences on the basis of the selection. The student interprets selections by summarizing what has been seen or heard. The student makes inferences by going beyond the content of the selection. Demonstrations of interpretation and inference include activities such as listening to a selection, expressing the main idea, and making inferences; supplying a logical ending to a story after being presented with only two-thirds of the story; supplying appropriate answer(s) to questions on the basis of context clues; and making up a story about a picture.

15. The student controls emotions and expresses them in a socially acceptable manner.

    Explanation: The student exhibits the ability to control and express emotions by appropriate use of words or actions. Demonstrations of self-control include behaviors such as expressing feelings or needs in a controlled and constructive manner; accepting socially imposed limits; and adjusting to changes in routine.

16. The student displays a positive attitude toward self.

    Explanation: The student exhibits a positive self-concept through favorable actions and words concerning self. Demonstrations of positive self-concept include behaviors such as taking finished work home; asking to have work displayed; showing work to others; working independently and asking for help from others when needed; completing tasks, tidying up after self; taking responsibility for personal belongings; and developing independent personal hygiene habits.

17. The student displays a positive attitude toward school.

    Explanation: The student exhibits a positive feeling about school through favorable actions and words concerning school. Demonstrations of a positive attitude toward school include behaviors such as using materials correctly and participating voluntarily in a wide variety of classroom activities.

18. The student interacts with others in a socially acceptable manner.

    Explanation: The student cooperates with others by being considerate of and sensitive to their needs. Demonstrations of appropriate school interaction include behaviors such as sharing materials; listening to ideas and opinions; respecting the property of others; and reacting positively toward the achievements of others.

Source: SDE, Report on the Implementation of the Basic Skills Assessment Program 1978-79. Columbia, S.C.: State Department of Education, December, 1979, pp. 17-20.

much tests of children's fine motor skills as of other skills ostensibly measured (p. 5).

In summary, the SDE report on the first year of implementation of the BSAP notes that in selecting the Cognitive Skills Assessment Battery, the committee gave particular attention to four issues:

1. The match between the test items and kindergarten objectives;
2. The appropriateness of the difficulty of test items;
3. The appropriateness of the methods of response required for young children; and
4. The language of [the BSAA] which states, "the State Board of Education, through the State Department of Education, shall use utmost care to insure that to the maximum extent feasible, within existing knowledge and technology, cultural bias is eliminated in the test administered as a part of the Basic Skills Assessment Program."

(SDE, Dec. 1979, p. 5)

3.4 The Readiness Test. The Cognitive Skills Assessment Battery (CSAB) was selected for administration in fall 1979 as the readiness test in the BSAP. In this section, we describe the CSAB and how it was revised for use in South Carolina.

The CSAB Instrument. The CSAB is an individually administered criterion-referenced assessment battery, authored by Ann Boehm and Barbara Slater and published commercially by Teachers' College Press of New York City. In the Eighth Mental Measurements Yearbook it is listed as a reading readiness test, and described, in part, as follows:

> Cognitive Skills Assessment Battery. Prekgnegn; 1974; CSAB; criterion referenced; "designed to provide a profile of the child's strengths and weaknesses" and to "explore curriculum needs of the entire class"; 84 item scores (40 consist of plus or minus) in 20 areas: basic information, identification of body parts, color identification, shape identification, number knowledge, information from pictures, picture comprehension, story comprehension, multiple directions, large muscle coordination, auditory memory, visual-motor coordination, sentence recall, vocabulary, visual memory, symbol discrimination, letter naming, visual-auditory discrimination, auditory discrimination, response during assessment.
>
> (Buros, 1978, p.1329)

The last area covered by the CSAB, namely "response during assessment," is quite unusual. It is based not on responses to specific items or tasks but on the adult administrator's subjective assessment of how the child reacts to the assessment. One reviewer commented on this aspect of the CSAB, as follows:

> A particularly interesting and potentially valuable aspect of the CSAB is a section assessing subjective aspects of children's performance during testing. Included are four-point ratings of task persistence, attention span, rapport, confidence, and the like. Affective and motivational influences on test performance are always of importance; they may be particularly important when assessing prekindergarten and kindergarten children. Formal recognition of this aspect of assessment adds an important dimension to the interpretation of performance on the other items and strengthens the utility of the CSAB.
>
> (Keogh in Buros, 1978, p.1331)

Now it might be wondered how the 20 areas which the CSAB covers, each with from one to nine scores, match the 18 kindergarten objectives for South Carolina. According to an analysis prepared by the SDE, the items on the CSAB relate to the 18 objectives as shown in Table 6. As this table indicates, most of the objectives are matched by one or more of the CSAB items; but the coverage is quite uneven, with 22 CSAB items matched with

TABLE (: Summary of Match Between CSAB Items and Kindergarten Objectives

Objectives[1]	No. of CSAB Items[2]
1. Gross Motor Skills	3
2. Fine Motor Skills	7
3. Remembers Visual Stimuli	1
4. Determines Likes and Differences in Visual Stimuli	18
5. Remembers Auditory Stimuli	5
6. Determines Likenesses & Differences in Auditory Stimuli	9
7. Communicates Using Expressive Language	22
8. Receptive of Language in Communicating	18
9. Expresses Interest in Language	0
10. Classifies Stimuli on the Basis of Attributes	4
11. Compares Stimuli on the Basis of Attributes	2
12. Sequences Stimuli on the Basis of Attributes	9
13. Begins to Understand the Concept of Conservation of Number	0
14. Interprets & Infers on the Basis of Oral or Illustrative Selections	7
15. Controls Emotions and Expresses Them in Acceptable Manner	1
16. Displays a Positive Attitude Toward Self	6
17. Displays a Positive Attitude Toward School	0
18. Interacts with Others in Acceptable Manner	1

Source: "Match Between South Carolina Kindergarten Objectives and Cognitive Skills Assessment Battery Items," undated memorandum by S.C. SDE. Also, it should be noted that sometime in early 1980, the pairing of CSAB with kindergarten objectives was reconsidered, with the result that items paired with four objectives were modified. According to the revised matching, 23 items are relevant to objective No.7; 17 to objective No.8; 10 to No.12; and 9 instead of 7 to No.14.

1 For a full description of these objectives see Table 5.

2. The number of items listed here totals 113, more than the total number of items on the CSAB because some of the CSAB items were listed as relevant to more than one objective. Note also that one or more items relating to five objectives are indicated to be "not included in the readiness determination."

objective #7 regarding use of expressive language, and zero items matched with objectives 9, 13, and 17, regarding interest in language, conservation of number, and attitude toward school, respectively. However, with respect to these three objectives the memorandum detailing the CSAB match with kindergarten objectives reports:

> The fact that the CSAB does not measure this objective in no way diminishes its importance. Some objectives may be measured only by teacher observations.

Also, it should be noted that the single items matched to objectives 15 and 18, concerning expression of emotions and interaction with others, are reported to be "not included in readiness determination." (These items are from the "responses during assessment" portion of the CSAB.) Before we explain in detail how the CSAB scores and the kindergarten objectives were related to the "readiness determination," let us first explain how the CSAB was specially pilot-tested and revised for use in the BSAP.

Review and Revision. The CSAB was not used in standard form in the BSAP. After being selected as the best available instrument for the purpose of fall first grade assessment, it was pilot tested and reviewed by a sample of teachers throughout the state. Specifically, after pilot testing the CSAB with their kindergarten children, teachers were asked to fill out a questionnaire concerning the appropriateness and potential bias of items on the CSAB, and the clarity of instructions for administering and scoring the instrument.[1] A number of possible problems in test items were identified through this review. Three examples were recounted to us by SDE officials. In one information question, children were asked their address, and according to scoring instructions

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1. Procedures for administering and scoring the CSAB were also revised on the basis of teachers' review of a videotape of an administration of the CSAB. Specifically to make scoring of the instrument easier, a scoring sheet including a carbon copy was developed. Thus two copies of each child's answers were available (one for the teacher and one to be sent to the SDE for scoring and analysis) without the teacher having to copy answers over by hand.

got full score only if they gave their street name and number. Yet the review process showed that some rural children do not live in places with regular addresses, and hence, though they might be able to describe where they live, cannot answer the question by providing street name and number. A similar problem surfaced with respect to an information question which asked for children's telephone numbers. A problem with a third item was revealed not in the review process, but in using a five-year-old to make a video-tape to help train teachers in administering the CSAB (p.6). This item, a story comprehension item in the original instrument, went like this: "This dog is thirsty. He doesn't want a bone. He wants some water. He looks around and finds a bowl of water. He drinks it all up because it tastes so good." After this story was read aloud, tne child was asked to point to the picture that showed what the dog did. The intended answer was a picture of the dog drinking water. But the five-year-old used in the video-tape pointed to a picture of the dog simply standing, and then to one of the dog drinking the water. The child had interpreted the two pictures to mean that the dog first looked around and then drank. Since this seemed to be an entirely plausible interpretation, one phrase in the story -- the dog "looks around" -- was removed (pp.43-44). With respect to the other two potentially problematic items mentioned above, scoring instructions were changed to take into account cases in which children did not have telephone numbers or home addresses with street names and numbers.[1]

After these and a few other changes, the version of the CSAB used in South Carolina had a total of 79 items keyed to particular tasks or questions

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1. A number of other changes were made in the standard CSAB, before it was administered statewide in the fall of 1979. The scoring of an information question asking for children's birthdays was revised, reportedly to take into account the fact that Jehovah's Witnesses do not celebrate birthdays, and several other questions were changed to reflect revisions suggested by the test authors (pp.45-46).

and seven rating items regarding children's responses during assessment. The revised instrument was scored so that the range of possible scores extended from zero to 117.[1]

3.5 Field Test and Setting of Cut-off Score. The next key step in the development of the readiness assessment was a field test of the CSAB in order to set a "readiness" cut-off score on the instrument. The SDE Report on the Implementation of the BSAP 1978-79 described the rationale behind and the process of setting the readiness cut-off score as follows:

> Related to the administration of the readiness test, Sections 1(b) (1) and (2) [of the BSAA] provide that the results of the readiness test shall be used to provide appropriate development activities in the first grade. These sections further provide that "based on the results of the tests, the school districts shall advise the parents of any student not indicating readiness for first grade work to secure a complete physical examination for that child. Such advice by the school district shall contain information about the local government health services that are available." In view of these requirements and the requirement that the State Board of Education establish minimum standards of student achievement for kindergarten through grade 12, it was necessary to define "readiness" in terms of a score or scores on the readiness test. In accomplishing this, the State Department of Education utilized teacher judgments and pupil performance data collected during the field-test administration in arriving at a recommended score. The score recommended to and endorsed by the Basic Skills Advisory Commission and approved by the State Board of Education on July 13, 1979, was 88 out of a possible 117 points (approximately 75%).
> (SDE, December, 1979, p.6)

The exact manner in which the 88 cut-off score was arrived at was as follows. In the spring of 1979, the CSAB was administered to approximately 3000 kindergarten students two weeks after their teachers were asked to rate them

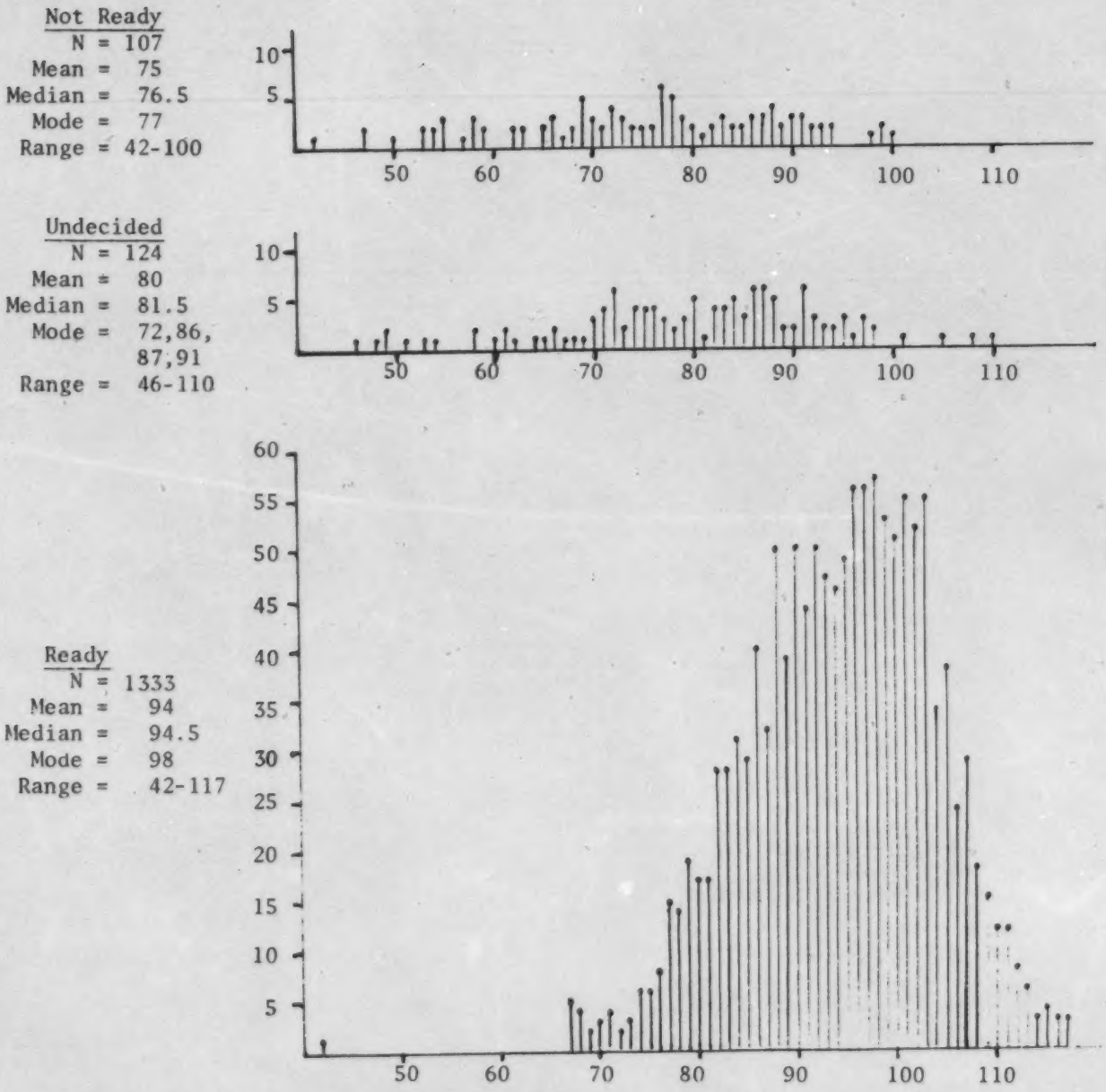
1. The response during assessment items were not scored as part of the readiness assessment. The difference between 79 and 117 derives mainly from the fact that more than 30 items were scored not just 0-1, but 0-2 or 0-3. Also, in at least some analyses item 24 was not included in scoring the CSAB. This item dealt with an addition problem written horizontally. It was excluded on the grounds that this item did not reflect a readiness skill.

as "ready," "unready" or "undecided" with respect to readiness for first grade. The readiness cut-off score was then determined by examining the relationship between CSAB results and the teachers' ratings of children's readiness for first grade. There are several different ways in which such a relationship might be considered, and the SDE tried at least three different approaches to using CSAB results for estimating children's first-grade readiness.

The basic idea behind all three approaches was essentially the same. It was to find a particular score or combination of scores which tended to differentiate between children rated "ready" and those rated as "unready." As the distribution of scores from the spring 1979 field test shown in Figure 1 indicates, the children rated as ready by their teachers tended to score higher on the CSAB (mean=94) than children rated as unready (mean=75) or undecided (mean=80). The group rated undecided scored on the average about 5 points higher than those rated unready. However, as Figure 1 also shows, there was considerable overlap in the score distributions of the three groups of children; the range of scores was 42-117 for the "ready" group 42-110 for the "undecided" group, and 42-100 for the "unready" group. The problem in setting cut-off points then became one of finding a way of using the CSAB scores to differentiate efficiently between these three groups or distributions of scores.

Two approaches employed by the SDE attempted to use CSAB results to classify children into three categories, corresponding to the groups of children rated as ready, undecided, and unready by their teachers. An SDE memo described these approaches as follows:

FIGURE 1: Results of Spring 1979 Field Test of CSAB by Children Rated Not Ready, Undecided or Ready by Kindergarten Teachers.



> The new classification of readiness based on the score or scoring scheme is selected in a manner [such] that the proportion of consistent classifications is maximized. In this text consistent classifications refer to those students or proportion thereof, that receive the same classification based on their performance in the test and the teacher classification. (e.g. If the teacher rates a student as "ready" and the student's performance on the test rates him as "ready" then this is a consistent classification.)
> (SDE, "Readiness," n.d., p.1)

The first approach to using the CSAB results for classifying children into the three readiness groups was based on a statistical technique known as discriminant analysis. This approach did not use overall CSAB scores, but instead results for specific CSAB items. Discriminant analysis was used to find separate algebraic equations for item results which most efficiently predicted teachers' ratings of children as ready, unready, or undecided. Without trying to describe the details of discriminant analysis, or the equations derived from this technique as applied to the CSAB field test results, let us simply note that this approach yielded 80% consistent classification overall.[1]

The second approach to using test results to identify students rated as ready, undecided, and unready was based on two scores, set so that proportions of misclassification across the three readiness categories were minimized. Under this approach a score of 80 was set as the point for differentiating students rated unready from those rated undecided, and a score of 89 as the score differentiating students rated undecided from those rated as ready. Using these cut-scores, the CSAB results yielded classifications into the three categories which were 69% consistent with

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1. In other words, this approach resulted in 20% misclassifications overall: 44% of those teachers rated unready, 49% of those they rated undecided, and 15% of those they rated ready were classified differently by the discriminant analysis. The details of the discriminant analysis are quite interesting. They indicate that relatively few CSAB items contribute to the power of the discriminant analysis to identify students rated as ready and unready. The items showing most difference in terms of differential identification of students rated ready and unready are #70 (identification of the letter g) and #62 (discrimination of a symbol showing a circle within a square).

the ratings made by teachers.[1]

Neither of these approaches was, however, directly used in setting the official readiness cut-score of 88. The discriminant-analysis approach was reportedly judged to be too complex for widespread use; it would, for example, have required a fairly complex system of scoring item results for each student. Also, the double cut-score approach was judged to be inappropriate, apparently because it was felt that the legislative mandate for the BSAP required a single differentiation of children who were ready from those who were unready. Also, of course, inclusion of a third category of "undecided" or "maybe ready" would have made the readiness assessment considerably more complex from an assessment point of view.

As a result, a decision was reached to set a single cut-off score on the CSAB as a means of differentiating "ready" students from "unready" ones. The procedure used to set the cut-off score of 88 was a contrasting group approach explained as follows.[2] Since the "readiness test legislation called for a binary decision (i.e., ready or not ready) only," it was reasoned that the group of kindergarten children rated by teachers as undecided with respect to first-grade readiness could be ignored (Garcia-Quintana & Huynh, 1980, p.5). Thus, the procedure was based on the contrasting groups of children rated

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1. In other words about 31% of the classifications were inconsistent; 36% of those rated by the teachers as not ready were classified differently using 80 and 89 cut-scores; 68% of those rated undecided, and 27% of those rated ready.

2. At the time of our visit to South Carolina, no detailed written description of the cut-score setting method was available. However, a SDE staff member described the general approach and kindly gave us the data in terms os which the cut-score was supposedly set; namely a SDE computer printout labelled "20:01 Monday May 21, 1979." Using this data we tried to reproduce the SDE results. Our initial reproduction was incorrect, however, because the data we had been given were slightly different than the data actually used to set the 88 cut-off score. When SDE officials discovered our initial effort to reproduce their results to be inaccurate, they promptly sent us a paper which described the data and the method actually used (Garcia-Quintana and Huynh, 1980). This paper is the source used in describing the procedure employed to derive the 88 readiness level, and also the source of the data we used in the reanalyses described in chapter 5.

either "ready" or "not ready" by their kindergarten teachers (the top and bottom distributions shown in Figure 1).

The cut-score of 88 was reportedly determined as illustrated in Table 7. As shown in the box at the top of the table, in the field test of the CSAB, 1333 children were rated as ready and 107 as not ready. The problem of setting a cut-score to differentiate these two groups then could be viewed as finding the cut-off score C such that the sum of the proportions classified consistently by test results and teachers' rating is as large as possible. In other words, according to this rationale the problem is to find which cut-score C maximizes the sum of P_1 plus P_4 (or in other words, makes the average proportion of consistent classifications, $P_1 + P_4$, as large as possible). Relevant data calculated from the field test-scores (distributions of which are pictured in Figure 1) are given in the bottom half of Table 7. These data show that as the cut-score is raised from 82 to 91 the percentage of children rated by their teacher as not ready who scored below the cut-scores increases from 64.5% to 87.9%. However, as the score is increased from 82 to 91, the percentage of children rated ready who scored above the cut-score decreases from 90.5% to 66.0%. The method used in setting the 88 cut-score was simply to look for the score which gives the largest average of these two percentages (that is, the maximum average of P_1 and P_4, as given in Table 7). As the data in this table indicate, the maximum average of these two percentages for the data shown in Figure 1 occurs when the cut-score on the CSAB is 88.[1] Thus the readiness cut-scores for the CSAB was set at 88, yielding an average consistency of classification in the field-test results of about 78%.

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1. Setting the cut-score at 89 would have yielded a very slightly lower average proportion of consistent classifications -- 77.935% instead of 77.942% for 88. In Table 7 we reported data to only 3 significant figures because there were only 107 cases in the not ready category.

TABLE 7: Derivation of Readiness Cut-Off Score of 88.

		Teacher Classification: Not Ready	Teacher Classification: Ready
Classification According to CSAB Results Using Cut-Score C	Not Ready (Below C)	$P_1 = \frac{n_1}{107}$	$P_2 = \frac{n_2}{1333}$
	Ready (At or Above C)	$P_3 = \frac{n_3}{107}$	$P_4 = \frac{n_4}{1333}$
		107	1333

n = number of children within each cell of the table, with

$n_1 + n_3 = 107$

$n_2 + n_4 = 1333$

and P = column percents

Criterion for determining cut-score C was to maximize

$P_1 + P_4$ or $\frac{P_1 + P_4}{2}$

Consistency of Classifications with Alternative Cut-Scores

Alternative Cut-Scores (C)	Children Rated Not Ready (NR) Below Cut-Score: # NR	% of Total NR	Children Rated Ready (R) At or Above Cut-Score (R): # R	% of Total R	Average Percent of Consistent Classification of Two Types
82	69	64.5	1207	90.5	77.5
83	71	66.4	1179	88.4	77.4
84	74	69.2	1151	86.3	77.8
85	76	71.0	1120	84.0	77.5
86	78	72.9	1091	81.8	77.4
87	81	75.7	1051	78.8	77.3
88	85	79.4	1019	76.4	77.9
89	89	83.2	969	72.7	77.9
90	91	85.0	930	69.8	77.4
91	94	87.9	880	66.0	76.9

Total NR = 107 Total R = 1333

Source: Derived from data provided in Garcia-Quintana and Huynh (1980).

3.6 Training for and Results of Fall 1979 Administration. After an instrument had been selected, field-tested, and revised, the next step in implementing the first-grade screening program was training of teachers to administer and score the CSAB prior to the full statewide administration in fall 1979. This training was handled through 20 regional workshops organized by SDE personnel. Each day-long workshop was attended by personnel from several school districts, including district test coordinators, elementary school principals, and first-grade teachers. The first portion of each workshop was devoted to a review of the "CSAB Teacher's Guide." This guide was specially prepared by the SDE for the fall 1979 administration in South Carolina, with the permission of the CSAB authors.[1] The guide was organized into three major sections, concerning

- What needs to be done before testing?
- What needs to be done during testing?
- What needs to be done after testing?

A similar guide was also prepared for district test coordinators.

The second portion of the workshop was devoted to presentation of a videotape recording of a teacher administering the CSAB to a child. This presentation was followed by a question and answer period on test administration. The final portion of the workshop was devoted to appropriate use of CSAB results in organizing developmental activities for children.

The list of do's and don'ts shown in Table 8 was distributed as a guide to the use of CSAB results for instructional purposes. The

1. SDE, Fall 1979 Administration of the Cognitive Skills Assessment Battery, n.d. It should be noted that the teacher's guide, the revisions in the CSAB instrument itself, and the specially developed two-part scoring sheet all were prepared with the approval of the CSAB's publisher, the Teacher's College Press of New York City.

TABLE 8: Guidelines on Use of CSAB Results for Instructional Purposes

General statements on the use of this Readiness Test Instrument for Instructional Purposes.

1. DON'T rely on this one instrument as the sole indicator for readiness	But	DO use it as a guide
2. DON'T use the 88 cut-off score to determine who doesn't get readiness	But	DO give appropriate readiness to all students in areas where they show deficiencies regardless of scores
3. DON'T use test scores as a justification for a conclusion you have already drawn or judgments you have made	But	DO use test scores as a challenge for improvement
4. DON'T stress just the specific skill found in a test item	But	DO focus on the broad category this item is intended to measure
5. DON'T structure a program that locks students into readiness beyond the time they need it	But	DO provide for flexible grouping which encourages students to move into the regular program when ready
6. DON'T file away test results in folders in the office	But	DO keep individual pupil response sheets available for reference
7. DON'T use the class profile chart with parents	But	DO use it to keep a record of student progress in mastering the readiness skills

Source: SDE "Readiness Test Workshop," August 1979.

"Teacher's Guide" also contained worksheets to illustrate how teachers could develop checklists of both individual student and class results on the CSAB in terms of the 18 kindergarten objectives. Participants in the workshops were also referred to three SDE publications as sources of information on developmental activities for instructional follow-up on the CSAB results.[1]

Twenty such workshops were held around the state in the summer of 1979, involving altogether around 1500 people. The idea was that test coordinators, principals and teachers who had attended these regional workshops would return to their districts and schools to train first-grade teachers who would administer the CSAB to all first-graders within the first 15 days of school in the fall.

Before administration, one other crucial problem had to be faced. How could it be arranged for each first-grade teacher to administer the CSAB to students individually without altogether disrupting the first few days of instruction? Given that administration of the CSAB would take about 30 minutes for each child, and that each first-grade class had 20 or more pupils enrolled, the total amount of time involved was about ten hours for test administration alone. As a solution to this problem the SDE came up with a plan whereby only some of first-graders would attend each of the first few days of school. While a substitute teacher oversaw this group of children, the regular first-grade teacher would take them individually to administer the CSAB.

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1. The three documents were "BSAP Developmental Activities Based on Kindergarten," which lists suggested activities relating to each of the 18 kindergarten objectives and two other more general SDE publications, "Learning with Language" and "PALS" -- the Parent Activity Learning System.

It is easy to underestimate the difficulty of doing all that needed to be done prior to the fall 1979 administration. Several officials of the SDE who had been involved in preparing for the first administration of the first-grade readiness instrument told us of the incredible amount of work necessary for fall 1979: guidelines and materials of various sorts to be prepared, printed and distributed; nearly two dozen workshops to be organized and held, numerous schedules to be coordinated; and innumerable problems to be solved. Several people mentioned the twelve-hour days and seven-day work weeks necessary to get the BSAP underway in the fall of 1979. As the State Superintendent of Education told us with respect to getting the BSAP under way,"My staff did a super, super job," and added, "It was a miracle just to get this thing out and to train teachers in administration of the test" in the short time available (p. 247).

Nevertheless, through what were by all accounts efforts far beyond the line of duty by the SDE staff involved in the summer of 1979, the thing did get out and under way statewide in fall of that year. Less than 400 days after the BSAP was signed into law, the CSAB as specially adapted for use in South Carolina, was administered to nearly 50,000 first-grade students in the 92 school districts of South Carolina. Initially, test results were scored by the teachers who had administered the readiness test -- both for their own use in planning relevant developmental activities, and for the schools to notify parents whose children scored below the readiness cut-off point of 88 (including, as required by the BSAA, advice that these parents arrange complete physicals for their offspring). At the same time, a copy of each child's answer sheet was forwarded to the SDE in Columbia for separate scoring there.

According to results released by the SDE in December, around 30,000 or 60% of the first-graders statewide scored at or above the readiness cut-score of 88, and around 17,000 or 35% scored below 88.[1] As was noted, however, in a Dec. 14, 1979 newspaper article in The State, "school readiness scores varied" considerably across different districts. Figure 2 shows the distribution of readiness results for the 92 school districts in South Carolina ranging from less than 25% ready in one district to nearly 90% ready in another. Far more could be said about these statewide results, in terms of apparent areas of strengths and weaknesses, and the patterns of results for different types of children. We will return to these issues in chapter 5. Before doing so, however, let us turn in chapter 4 to recount how the BSAP, and specifically the fall 1979 readiness testing, was viewed in the local districts we visited.

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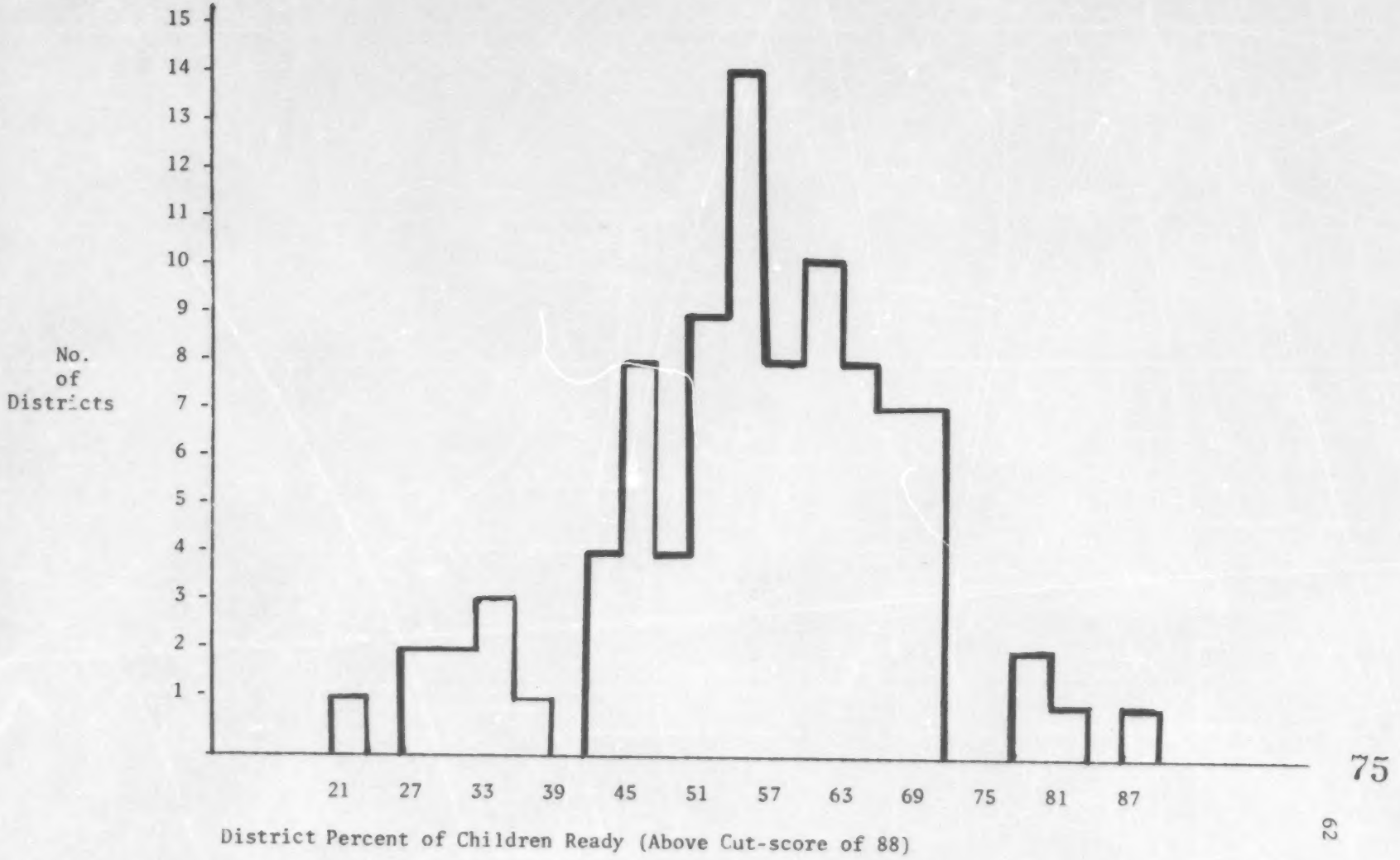
1. SDE, "Cognitive Skills Assessment Battery (CSAB): Preliminary Results from Fall 1979 Administration," 12/14/79. The percents ready and unready do not sum to 100 because approximately 2500 or 5% of the answer sheets statewide were incomplete: i.e., the responses to one or more test items were not recorded on the answer form and the score obtained from the available data was less than 88.

FIGURE 2: Results of Fall Administration of Cognitive Skills Assessment Battery, By District



IV. VIEWS OF TEACHERS, LOCAL SCHOOL OFFICIALS, AND PARENTS

So far we have simply reviewed in broad outline the background, development and implementation of the Basic Skills Assessment Program as of the 1979-80 school year. Though remarks of people with whom we talked have occasionally been quoted, we have not yet given an overall account of our visits to South Carolina and what we learned from teachers, administrators and parents in the six districts visited. This we will do here in Chapter 4. First in section 4.1 we simply describe how our visits were organized and carried out. Second, in section 4.2, we draw three general observations -- on the diversity of views people expressed about the BSAP, the intertwining of the BSAP with other programs, influences and concerns, and the varied conditions of the schools and districts we visited. Then the next three sections summarize several patterns apparent in the comments of teachers, local district officials and parents. The final section, 4.6, recaps findings from our field visits.

4.1 Field Visits. The panel visit to South Carolina was carried out in May 1980. However, the planning for the week-long visit actually began six months before that date.

Initial Visit After reviewing a variety of materials on the BSAP recommended by SDE officials, Walt Haney, coordinator of the case study, made an initial visit to South Carolina on Oct. 30-Nov. 1, 1979, to learn more of the program. In Columbia, he met with 14 persons

concerned with various aspects of the BSAP. These included Dr. Williams and Dr. Sandifer, six other State Department of Education officials, two members of the South Carolina Basic Skills Advisory Commission, and representatives from two local school districts, the South Carolina Education Association and the Southeastern Public Education Association of the American Friends Service Committee. In addition to gathering basic descriptive information on the BSAP and how it was being implemented, Haney also used the occasion to begin making plans for the subsequent visit to South Carolina by a special panel of individuals to study how the BSAP was working out in practice.

The Panel The case study was carried out by a panel whose members represented a variety of perspectives on education and educational assessment. At the fall 1979 conference of the National Consortium on Testing, after a brief description of plans for the case study, nominations for participants in the case study were solicited from Consortium member organizations. The more than two dozen nominations were compiled by Haney, reviewed by Consortium officers, and after contacting ten nominees concerning their interest and availability to participate in the case study, four panel members were chosen, namely Carol Kimmel, Ruby Murchison, Michael Garet, and Walter Haney, as case study coordinator. As indicated in the description of these individuals in the preface, they brought to the case study a tremendous range of experience; in teaching, in educational research and evaluation, and in educational policy-making and planning.

Districts Visited Given the time and resources available for the case study, it was possible to visit only a limited number of school districts in South Carolina. Their selection was based primarily on two

considerations. First we sought districts which spanned a fair range of the state's educational and demographic characteristics. Second, we sought to visit districts which were reasonably accessible from Columbia, which was the panel's base of operations during the field visits. Four characteristics of districts were reviewed in selecting ones to visit: 1) results of the fall 1979 BSAP readiness testing; 2) census information on the degree of urbanization in the counties in which districts were located; 3) data on the proportion of school enrollment which was nonwhite in 1977-78; and 4) data on district rates of promotion of pupils from the first to second grade in 1977-78. Table 9 shows the characteristics of the six districts selected for visits, plus statewide totals on the variables in terms of which of these districts were selected.

After districts were selected we then wrote directly to the superintendents of each, explaining the purpose of the case study and soliciting their cooperation in the case study. The letter also explained that the State Department of Education was cooperating in the case study and gave Dr. Sandifer's name as a reference at the State Department. Each of these superintendents responded to our initial inquiry with expressions of willingness to have us visit.[1]

Panel Visits One month prior to the panel visit, each member received a packet of materials describing the BSAP. The visit was carried

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1. A seventh district was initially selected, but its superintendent declined to participate because of a conflict in schedule during the week for which the visits were planned.

TABLE 9: Background Data on Districts Visited*

Districts	Fall 79 Readiness Test		County (N=46)		District (n=92)			
	No. Tested	% Ready	Urban Pop. 1970	% rank	Sch. Enroll. Nonwhite 1977-78	% rank	1st Grade NonPromoted 1977-78	% rank
1	90	32%	41	14	54	39	8	46
2	109	33%	16	40	100	1	7	51
3	720	88%	53	5	6	92	2	80
4	87	28%	19	35	59	29	4	71
5	48	79%	19	35	55	37	8	40
6	2,594	57%	85	1	65	22	8	39
Statewide Characteristics								
Average		60%		48%		41%		8.6%
High		88%		85%		100%		18.8%
Low		23%		0%		6%		0%

* Sources: - P. Sandifer Memorandum to members of State Board of Education "Results of Fall 1979 Administration of the Cognitive Skills Assessment Battery (CSAB) by District: Jan. 11, 1980."

- R. Hill, Rankings of the Counties and School Districts of South Carolina 1977-78. Columbia, S.C.: State Department of Education, Jan. 1979, pp. 14, 83-84, 119-120.

out during the week of May 12, 1980. Monday of that week was devoted to orientation and discussion among the panelists. The next three days were spent largely in visiting local districts and schools, and the last day-and-a-half was spent in meeting with state officials and other interested persons in Columbia. Far more time could easily have been devoted to interviews with officials in Columbia. However, the bulk of time and resources was used in visits to districts and schools, for the simple reason that our primary interest in conducting the case study was how the BSAP was working out in practice.

Toward this end, our visits were organized as follows. The panelists first met with the district superintendent or his representative to explain the purposes of the case study and to obtain his views on the BSAP. The panelists then visited one or more elementary schools to meet and talk with school principals, with kindergarten and first-grade teachers and with parents of kindergarten or first-grade children. Interviews were largely informal. In each interview, after briefly describing why we were conducting the case study, we sought to obtain people's views on the following general categories:

- What do you see as the major strength of the BSAP and the readiness testing?
- What do you see as the major weakness of the BSAP and the readiness testing?
- In what particular ways has first-grade instruction changed as a result of the readiness testing?

Typically, conversations then went on to cover other topics or concerns relevant to the BSAP, and the readiness testing. During interviews, panelists made brief notes of people's responses to the questions and of the subsequent discussion. Afterwards detailed field notes were dictated onto tape recordings, transcribed and checked for accuracy by

each panelist. The transcribed field notes of the four panelists totaled altogether about 250 pages of typescript. These notes, together with written documents, and the general impressions of panelists, provided the raw material from which this report was written by the case study co-ordinator, in consultation with the other panelists.

The field notes were used in the following way in preparing this chapter. First the study coordinator read through all the field notes and prepared a general outline of findings, which was distributed to other panelists for their comments. Then a coding sheet was developed as a rough guide for tallying up the sorts of comments which different people made concerning strengths and weaknesses of the BSAP and how first-grade instruction had changed as a result of the first-grade readiness assessment. The field notes were then read three times in order to note separately the types of comments made by teachers, other local officials and parents. While this rough tally of types of comments affords us some basis for estimating the frequency of different types of comments, we should make clear that such estimates are by no means precise. On a few occasions, for example, more than one teacher was interviewed at the same time, and field notes do not always indicate whether specific comments were made by one or more teachers.

In the following account of what we learned, page references refer to our field notes. Though we quote specific comments of people interviewed, these are not attributed to specific individuals for the simple reason that we wish to preserve the confidentiality of those who offered us their oftentimes quite candid observations.

4.2 General Observations. Before describing any of the specific findings from our interviews, let us set out three observations regarding what we

learned. These pertain to:

1) The diversity of views expressed concerning the BSAP;
2) The intertwining of the BSAP in practice with other state programs and influences, and with federal and local ones as well;
3) Varied conditions apparent in the districts we visited.

Diversity. Although we visited only 7% of the school districts in South Carolina, and talked with far less than 1% of the state's public school teachers, and a far smaller portion of its citizens, the first observation we would make concerns simply the diversity of views expressed on the BSAP in general, and the first grade readiness assessment in particular. To illustrate this diversity let us cite the views of three school officials regarding the general value of the BSAP. On the positive side, one told us that he heartily approved of the BSAP because it could help improve instruction, which was his first concern. Specifically, he said that the program would "help teachers focus on instruction which children needed for a good education" (p. 186). Yet another man speaking of the same program said it had next to no educational merit.

> The program is terribly dragged out, [and] inordinately time consuming. The means have become the ends. I don't see much relation of the program to instruction. (p. 96)

Later, he summarized his feelings about the BSAP with the observation, "It's just another layer of crap. I don't usually mind bureaucratic requirements, but this is pointless, it is superficial" (p. 100).

This individual's view is somewhat extreme. Perhaps more typical of the views we encountered is that of a third school official. When asked how he generally felt about the BSAP, he observed that South Carolina is "starting on the bag of testing like almost every place in

the country." He nevertheless went on to say that "when the program becomes operative, it should help improve education" (p. 209).

Such diversity characterized most of what people told us about the BSAP and their experience with it. Some general patterns were apparent in the views expressed which we will describe shortly; here let us simply note that for just about any particular observation drawn by one person, a contrary or at least very different view was expressed by someone else with whom we talked. In fact even within the course of a 20 or 30 minute conversation, the same person sometimes seemed to express contrary views on certain aspects of the first-grade readiness assessment. One teacher, for example, when asked what she saw as the major strength of the assessment, said that the opportunity to spend time with each child individually was the most positive and rewarding part of the program thus far (p. 161). Yet when asked about weaknesses of the program, she said she disliked being away from her first-grade group during the first few days of school. She said that this time is a very important one, in which teachers need to become firmly established with their classes. Both sentiments reflected genuine and understandable concerns, but the point they raise is simply how a teacher can spend 30 minutes with each of 20-25 children on an individual basis, and at the same time get firmly established with her children as a group.

Intertwining with Other Programs. Our second general observation is that in practice the first-grade readiness assessment is intertwined in numerous and complex ways with a variety of other state, local and federal programs. As we noted in chapters 2 and 3, the BSAP of 1978 has historical and legislative connections to the EFA of 1977. But people in local school

districts on several occasions saw the connection of these two pieces of legislation as being even more direct. As one superintendent said, the BSAP might be fine in terms of identifying problems and needs, but to do anything about them, "we have to have resources." For that reason, he viewed the EFA of 1977 as a more important and influential piece of legislation than the BSAA of 1978. (Three different officials observed that the EFA was more important than the BSAA. No one suggested the contrary.) The point of these observations is simply that several officials indicated that how the BSAP worked out in practice would be influenced by the resources made available to school districts as a result of implementation of the EFA.

Implementation of the BSAP also is entangled with several federal programs. The tie to PL 94-142, the Education for All Handicapped Children Act, was explicitly recognized in section 3 of the BSAA, which noted that separate standards and testing may be used for handicapped students. But in our visits to just six districts it became clear that the implementation of the BSAP is also influenced by several other programs, including Head Start, Title I, and the Emergency School Assistance Act. Connections are, or at least are perceived to be, quite different in different districts. The relationship between the BSAP and Title I, for example, was seen as markedly different in different places. The purpose of Title I is to provide financial assistance to local educational agencies for the instruction of educationally disadvantaged children. And one of the explicit requirements of the BSAA is for districts to "provide basic instruction to aid the student in bringing his performance up to the statewide minimum standards . . . ." (BSAA, section 2e). What then is the relationship between these

two programs? We have not attempted to study this question and suggest no easy answers to it, nor even claim to know what South Carolina or federal regulations may have to say about it. But we were struck by the fact that the relationship between the two programs, and between the BSAP and other federal programs, was seen in markedly different ways in different places we visited. In one school, children who had been designated as unready for first grade on the basis of the fall 1979 CSAB were separated into a separate class from those who had been designated ready. Why? In the words of the teacher who taught the Title I "unready" class, because "this seems to be what is required by Title I" (p. 226). Yet in another district we were told that state regulations do not permit using the CSAB for selection of children for Title I services (p. 107).[1]

Perceptions of the readiness assessment seemed to be strongly influenced also by local programs. In two districts which had instituted assessment programs based on a particular first grade reading program, the view was expressed that the CSAB was of little instructional value because it was not keyed to the local curriculum. In districts which had

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1. With respect to this observation we should note that some such perceptions inaccurately characterize state policy. In section 4.6 we will comment on this point further. Also it should be noted that in the planning leading up to the BSAP, some attention clearly was given to the potential relationship between the state program and federal ones. In the Special Committee (n.d.) report, the following paragraph appears almost word for word in three places:

> Consideration was given to mandating the use of summer sessions for this instructional purpose, but this was not adopted for fear of jeopardizing Federal funds. In fact, the language of the last sentence of (c)(2) is carefully worded, based on advice from the Department of Education, in order to avoid jeopardizing federal funds. (p. 20, repeated with only section references changed on pp. 21, 26)

no such programs, people seemed to feel that the readiness assessment had greater potential instructional value. One teacher's comments aptly summed up this contrast. She suggested that in her district which had instituted a testing program for the purpose of individualizing first-grade instruction, the state readiness test was not nearly as important as it might be in districts which had no such program (p. 166).

A final example may epitomize the complexity with which local, state and federal efforts can interact. One school principal spoke to us with obvious pride about the excellence of the kindergarten teacher on his staff. All the children who had attended this teacher's kindergarten had passed the readiness test. This naturally raised the question of how it was then that around a third of the first-graders in this school had scored below the 88 cut-point on the CSAB in fall 1979. The principal said that all those children had attended kindergarten in other schools nearer their homes. They had come to his school under a federal court desegregation order. How was it, we inquired, that the desegregation order applied to first-graders but not to kindergarteners? He explained that the desegregation order did not apply at the kindergarten level, because kindergarten attendance was not legally required in South Carolina. Compulsory school attendance begins only at grade one and age six.

The point of these anecdotes is that it is oftentimes very hard to derive any simple answers to how the BSAP program was working in practice in 1979-80, for the simple reason that it was differently influenced in different places by myriad other programs and requirements.

Varied Conditions. Our third general point relates to the first two. It is simply that the educational and social conditions we observed in the

districts visited were remarkably diverse. In one district, for example, the public school population was almost 100% black, because white children attended a private academy. In a nearby town, apparently quite similar demographically, schools had been successfully integrated and according to the superintendent the educational achievements of this district were due in large measure to the widespread concern of all parents for high-quality education, for both black and white children.

Such varied conditions obviously have an impact on the implementation of any educational program in the schools. The two districts mentioned above had strikingly different results on the fall 1979 CSAB test, namely only around 30% designated ready in the first instance, but nearly 80% in the latter -- even though in previous years these districts had had highly similar first-grade promotion rates (93 and 92% in 1977-78 respectively).

Attitudes of educators toward the BSAP often seemed to reflect such varied conditions. In one poor community, where the schools obviously were confronted with numerous educational and social problems, a district official questioned why South Carolina needed to have the BSAP at the same time it was implementing other complex legislation like the EFA. When asked what one recommendation he would recommend with respect to the BSAP, he said "more in-service [training] for teachers regarding identifying ways of meeting children's needs" (pp. 212, 216). In contrast, in an affluent community, seemingly beset by far fewer problems, officials seemed to take the program far more as a matter of course. They found it hard to state clearly what they saw as the strengths and weaknesses of the BSAP readiness screening, because "the program really made no difference in [our] system" (p. 156).

We will comment further in the next section on how teachers' reactions to the CSAB testing varied, at least partly in apparent reflection of teaching practices and teachers' attitudes. Here let us simply note the general point that how the first-grade readiness testing is working out in practice seems to be influenced tremendously by myriad other consideration, including not just other state, federal and local educational programs but also by local community conditions and prevailing educational practices and attitudes of both schools and teachers. As one official put it in commenting on the wide range of teachers' reactions to the problem of providing appropriate instruction in response to the CSAB results: "Good teachers would grab a program when they see it, but some wouldn't do anything unless you hit them over the head" (p. 213).

4.3 In the Eyes of Teachers. How then did teachers grab the BSAP and particularly the first-grade readiness program? We talked altogether with about 40 teachers in the six districts visited, about two-thirds of whom were first-grade teachers and the rest kindergarten teachers. They talked mainly about the first-grade readiness testing, rather than the BSAP in general. Since the readiness testing was the only portion of the program to be implemented statewide in 1979-80, it was the aspect of the program with which teachers were most directly familiar. Here is what they told us about the strengths, weaknesses and influences of the program.

Strengths. Easily the most commonly perceived strength of the readiness testing program was that it allowed time for teachers to get to know their new first-graders on an individual basis. Though this sentiment was expressed in different ways, more than half of the first-grade teachers

mentioned it. Here is a sampling of what first-grade teachers identified as the "best thing," the "strength" or the "main benefit" of the readiness screening program:

- "The readiness test permits teachers to be with each child for thirty minutes on a one-to-one basis at the beginning of the year." (p. 54)

- "Learning something about individual kids by administering the CSAB." (p. 64)

- "The time you spend with the child alone -- the giving of the test, seeing how the child responds to the questions." (p. 69)

- "The time element -- you're able to talk with the child on a one-to-one basis, an individual basis and that gives you a lot of insight into the child." (p. 87)

- "Working with individual children." (p. 105)

- "The opportunity the CSAB gave . . . to test each child individually." (p. 113)

- "The opportunity to have time with each child at the beginning of the class year." (p. 161)

Comments along these lines -- namely that the individually administered readiness test gave teachers time to work with and to get to know children on an individual basis -- were easily the most frequent response by teachers to our query concerning the major strength of the BSAP and the readiness assessment. Interestingly, however, several teachers had reservations on precisely this aspect of the program. One first-grade teacher, for example, said that one of the biggest advantages of the program was that it enabled teachers to spend some time away from the classroom with each child, near the beginning of the year (p. 139). But another teacher, in the same interview, added that individual test administration was also something of a drawback "because the test reflected how the kids do one-to-one, but not

how well children would do in a group setting" (p. 139). When asked what the difference might be, this teacher suggested that the "biggest difference in one-to-one work and class work concerns language development": oral language, she said, is important in doing well on the CSAB, but less so in doing well in regular class work.

Two other teachers expressed reservations about administering the CSAB during the first few days of school. When asked what they would recommend if one aspect of the assessment could be changed, they both replied that they would look closely at its timing: "It is required within the first few days of school [when] we really don't know our students yet" (p. 203). Similar sentiment was expressed by the teacher who told us, "One thing I didn't like was being out of the room for four days right at the start of the school year when everything's new to all the children. It's so different for most children being in the first grade. Many children are not used to it yet" (p. 236). Yet this same individual went on to comment that she enjoyed giving the CSAB, that it showed her a lot and "helped me to get to know the child a bit better" (p. 236).

As this comment suggests, a strength of the readiness test closely connected to the perceived value of getting to know children individually was the instrument used, namely the CSAB. Indeed, in response to our questions about the strength of the BSAP, and the readiness testing, the CSAB was the second most frequently mentioned response. Sample comments from both first-grade and kindergarten teachers were as follows.

- "We love the test because it's helpful to us in planning for our students" - Group of K teachers, p. 197

- "The CSAB seemed much better than the Metropolitan Readiness Test" - First grade teacher who suggested that the MRT was too difficult, p. 106

- "The CSAB [is] much better than the Metropolitan Readiness Test which we had been using previously." p. 69

A third particularly interesting type of comment offered by several teachers was that the objectives and the test aided them in thinking about and keeping in mind why they were teaching what they were teaching. As one teacher put it, the assessment program "makes you redefine and re-evaluate the purposes of what you're doing" (p. 61). Another suggested that "I haven't changed my teaching much as a result of the CSAB, but I'm more aware of why I'm doing things such as auditory memory, visual memory and oral language" (p. 73).

Other comments on the benefits or strengths of the BSAP and the readiness assessment were more scattered. One teacher remarked that she found the fall administration of the readiness instrument more useful than a spring administration because children change a lot over the summer (p. 72). Another suggested as a benefit that "maybe it might convince the state to put more money into early childhood education," and quickly added, "But I'm not sure that's what it's for" (p. 83). Another commented that one good thing about the test was that it seemed to be culturally fair, and added, "That isn't true at all of most materials used in the first grade" (p. 77).

Weaknesses. If these were the perceived strengths of the BSAP and specifically the readiness aspect of it, what they were their weaknesses in the eyes of teachers? Curiously enough the readiness instrument that was directly connected to most of the perceived strengths was also directly implicated in the two weaknesses most commonly cited by teachers with whom we talked. These weaknesses -- or shortcomings, or worst aspects --

pertained to the scoring of the CSAB and to the fact that it did not seem to identify accurately which children did and which did not need special help in first grade.

Concerns about scoring of the CSAB were voiced by close to half of the first-grade teachers with whom we talked. One teacher commented, for example, that though the scoring instructions she had been given were good, "Your subjectivity still matters in scoring a response" (p. 140). Another teacher, who favored use of a group-administered rather than an individually administered instrument, said that one reason the CSAB was not very useful was that a lot of teacher judgment was involved in interpreting children's answers. She went on to explain that teachers had considerable leeway in interpreting children's language, which "would not have been possible in a group administered test" (p. 132). Yet another teacher remarked that unfortunately not all teachers scored the CSAB in the same way, and gave the following example. "Some of the items on the CSAB ask children to describe pictures. The items were supposed to be scored according to the richness of the child's description, but that required a good deal of teacher interpretation and judgment" (p. 147). Another teacher gave an even more specific example of a problem in scoring the CSAB, which she had administered six months before our May 1980 conversation. She said that one item on the test asked children for a "definition of the word apple" and that many children were unsure what a definition was. A child might say "an apple is what you use to make a pie." She indicated, however, that this sort of response wasn't supposed to be counted as correct, although "it certainly indicated that the child knew something about apples" (p. 139).[1] We asked one teacher, who had said that she wasn't

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1. Again we should point out that such comments by teachers were not always entirely accurate, as we will explain in section 4.6.

sure how to score children's responses on some items, how she dealt with this uncertainty. She replied that "my feeling would be to err on the side of scoring children lower so that they would get special help" (p. 139).

Several teachers also commented on problems not of scoring individual items, but of deriving a total score on the readiness instrument. One noted, for example, that because CSAB items matching the same kindergarten objective were not grouped together, scoring in terms of objectives required one to "turn back and forth to score the test" (p. 189). Another suggested that the test was difficult to score because "it was hard to keep up with where you were as you scored it. Scores had to be transferred to several places, and this was very time-consuming" (p. 193). In another interview, teachers voiced the feeling that for them to take the time to score the test and then for it to be scored again someplace else seemed to be an unnecessary use of their time (p. 157).

The last comment apparently referred to the fact that in addition to teacher scoring of the CSAB, a copy of each child's answer sheet was sent to Columbia for scoring by the SDE. Teachers scored the instrument immediately after administration, and the state-scored results were reportedly returned to districts in late November or early December. In two districts, teachers mentioned discrepancies in the teacher-scored versus state-scored results (specifically with the teacher-scored results showing a child above the readiness cut-score, and the state-scored results showing that child below the cut-score, or vice versa) as evidence of problems in the scoring of the instrument (pp. 140, 191).

Like the views on virtually every other topic, those on problems in scoring the CSAB were by no means unanimous. One teacher, for example, reported that "Scoring the test wasn't very difficult nor was it very time-consuming" -- and went on to suggest that after the third or fourth time around, administration of the instrument "became just plain boring" (p. 202).

Before leaving the topic of problems in scoring the readiness instrument, let us recount one other view expressed on the matter, to the effect that subjectivity in scoring was really a strength rather than a weakness of the readiness assessment. This observation was offered by a state official in Columbia, not by a teacher, but we cite it here for the light it sheds on teacher comments. The official acknowledged that there was a real trade-off between having teachers closely involved in assessment, hence being able to use results directly, and having the scoring entirely consistent across the state. She maintained, however, that the subjective involvement of teachers was really a strength of the program because "what the teacher gets into her head as a result of the individualized assessment" can help her immediately in working directly with children, regardless of what is put down on paper (p. 16).

The second major perceived weakness of the readiness assessment was simply that the CSAB results did not provide a very accurate gauge of how children would do in first grade, or was not relevant to first-grade instruction. Sentiments along this line were expressed by about half of the teachers interviewed. Sample comments of this sort by first-grade teachers are as follows:

"In my room, all but eight children fell below the cut-off point, but I didn't find it to be true . . . . The kids haven't evolved in the way the test predicted." (pp. 55-56)

"Some of the skills tested on the readiness test aren't always taught in kindergarten, and consequently you can't interpret poor performance on some items as meaning lack of readiness." (p. 62)

"[One weakness of the CSAB] was that there were not enough items concerning letter recognition and number recognition which are particularly important skills for first graders." (p. 69)

"The test may say something about where a child is in September, but the child may change a good deal in just a few months." (p. 80)

"The first grade teachers at [our school] would probably have ranked their children somewhat differently than the rankings that were obtained from the CSAB results." (p. 80)

"[The CSAB] might be a good test of kindergarten skills but not of first grade readiness skills. [It is] a very simple test. It's not a justifiable test of children's ability . . . . One important problem with the CSAB is that it is an individually administered instrument, [but] we don't work with children one on one. We work with groups. (p. 132)

"Some of the children who scored below 88 made the most progress over the year -- and that's what bothered me." (p. 141)

"[The CSAB] was too easy for a readiness test." (p. 147)

"I grouped the kids in my class according to their CSAB scores, and then found that the kids in each group were all reading at different levels." Then following the comment by another teacher that she had not used the CSAB results, the first teacher exclaimed "So that's why I was so frustrated all fall. I actually attempted to use the CSAB results for something." (p. 146)

"Many of my students labelled 'not ready' for first grade were indeed ready. The test was given too early in the school year [in the first week of school when] teachers and students were still strangers to one another." (p. 188)

> "The top student scored 'not ready.'" (p. 190)
>
> "The test didn't include everything I felt students needed to know to do well in the first grade. There were too few questions on lettering and number concepts." (p. 191)
>
> "The test didn't accurately tell which students were ready and which students were not ready for first grade." (p. 193)
>
> "Some of the children who scored real low on the readiness test ended up doing fine after one or two weeks in school." (p. 225)

What seems remarkable in such comments is that the cut-score of 88 seemed firmly fixed in teachers' minds. There seemed to be very little appreciation of the fact that a large margin of error was embodied in the setting of the cut-score (specifically a misclassification rate of 20%) or of the SDE's advice that the CSAB results should not be used as the sole indicator of readiness. (See the list of "Do's and Don'ts" of readiness, distributed by the SED and shown in Table 8.) Apparently lacking awareness of the frequency with which discrepancies could be expected between their own judgment and children's scores above or below 88 on the CSAB, teachers typically doubted either the validity of the CSAB as a readiness measure or their own judgment in scoring it when they found that first-grade performance did not reflect the CSAB results. The reactions of two teachers from a rural school district were perhaps characteristic of this tendency. After noting that some of their children did much better in first grade than expected on the basis of CSAB results, the teachers expressed worry that scoring procedures calling for their subjective judgment may have been at fault (p. 141).

Curiously, however, exactly the opposite phenomenon -- that is, close match between CSAB results and students' subsequent performance -- also sometimes seemed to cause teachers to doubt their own judgment. One teacher, for example, told us that just before our visit she finished examining the CTBS test results for her first-graders. She had used the CSAB results to make a list of her students in order of test scores. She then had remembered that she had done something similar with the CSAB readiness scores and somewhat to her dismay found that the rank-ordering on the two lists was almost identical. She wondered aloud to us, "I hope I didn't take the test too much into account in my teaching" (pp. 88-89). She said she really didn't know what to make of this -- whether the readiness test actually did predict how well students were going to do in the first grade, or whether she based her expectations too heavily on the readiness test; or perhaps, she continued, that kids just tend to do about the same on tests like those, from one time to the next.

A third prominent concern of teachers was the availability of resources and training for providing instructional help to children who performed poorly on the CSAB. One teacher, for example, said that she wished the state were offering ready-made materials and activities designed to strengthen specific skills: "I don't want another manual to put on my shelf. I don't have time to read any more manuals. I want materials that are already developed -- activities that I can use in my class the next day after I have read the scores and see the skills of children that need to be developed" (pp. 163-164). Other teachers in the same school said they also wanted in-service training in how to use such materials,

and how to work with children to strengthen the skills that needed to be strengthened, and classroom support in the form of specialists and aides (p. 164). Similar sentiments were expressed by at least five other teachers (pp. 63, 188, 190, 190-2, 226). Perhaps the most plaintive comment along these lines came in a discussion with two first-grade teachers in one of the poorest school districts we visited. We asked what the teachers would like most if one thing could be changed about the readiness program. When one person mentioned additional help from the SDE, a young teacher latched onto this idea "like a drowning person" (as one of us later observed) and exclaimed:

> Oh, if only this were true! You know even if I could just have an aide all day to help with children, so I could give more individualized attention to other children, or materials or a reading specialist, or any kind of help.

But with an air of disappointed hope, she added that without such help she felt the program was useless and wished she didn't have to be bothered with it (p. 152).

The next most common concern expressed by several teachers was that results on the CSAB readiness instrument reflected children's home background as much as anything else (pp. 88, 106, 111, 190). One comment along these lines came from a first-grade teacher in an urban school district:

> Let me say this. A lot of that test [the CSAB] had to do with home background. It seemed to measure the sort of general things a child might learn in the home rather than the sorts of specific skills a child needs to progress well in the first grade. (p. 134)

Beyond these types of comments, other types of weaknesses were mentioned by only a few teachers. Several, as mentioned previously, disliked the fact that because of the timing for administering the CSAB,

children lost a week of instruction right at the start of school (pp. 112, 159). One kindergarten teacher suggested that schools which had participated in the pilot testing of the CSAB might have had an unfair advantage over other districts and might have been coaching kindergarten children for the test (p. 83). Another teacher complained of the paperwork involved in the readiness assessment (p. 74) and two indicated dissatisfaction with the apparent lack of coordination among different agencies of the SDE. According to one, the SDE departments of curriculum and of early childhood education gave very different interpretations of the BSAP. She said that the curriculum department was "big on statistics" and liked to distribute tables showing how well all of the districts across the state had done on the CSAB, while the early childhood department kept saying that the test was only one indicator of a child's performance (p. 66).

Differences? How did the variety of strengths and weaknesses which teachers saw in the readiness assessment affect what went on in first-grade classrooms? This is what we tried to get at in the third general question we asked of teachers. Specifically, we asked them in what particular ways first-grade instruction had changed as a result of the readiness assessment. Seen in retrospect, there may have been an implicit bias in the way we tended to put this question -- namely, the assumption that indeed some instructional consequences did flow from the readiness assessment. The general pattern of responses indicated that this assumption was simply not warranted.

The general response was that little if anything in the way of instruction had changed. One interview with two first-grade teachers in a rural school district was perhaps characteristic. After discussing the

strengths and weaknesses of the BSAP and the readiness assessment, we asked what the teachers did differently in the 1979-80 school year as a result of the CSAB. There followed a long silence while the teachers seemingly grew increasingly uncomfortable. In sympathy for their apparent discomfort over the question, we added that it didn't really matter whether things were different; that we just wanted their thoughts on the matter. Finally one teacher said that "this is the first year of having Title I in the elementary grades so that this is the first year when kids in the early grades like first grade can get Title I services -- if they score below 88" (p. 237).

This reaction was not uncommon. More than a dozen of the teachers with whom we talked indicated little difference in classroom instruction as a result of the readiness assessment, giving accounts such as the following:

- We haven't changed the curriculum in response to the assessment. (p. 56)

- Asked whether kindergarten teachers are doing anything differently as a result of the assessment program, a first grade teacher said she wasn't sure but that she had noticed that the kindergarten teachers now are using a reading readiness book that goes along with the basal reading series used in the first grade [which] the first grade teachers had been urging the kindergarten teachers to do. (p. 59)

- Asked whether the CSAB had any influence on how she teaches, a grade 1 teacher said, "To a large extent it hasn't. I've developed my program through the years." (p. 72)

- "I've taught for twenty-three years and I've learned that readiness tests can only provide a very general indication of a child's weaknesses. They don't provide much by way of specific information." (pp. 87-88)

- Asked whether anything had changed as a result of the CSAB, apart from using results to help select children for Title I services, a teacher

answered, "not really." She went on to explain that the CSAB didn't really provide much information about children: "possibly because I've been a teacher for a long time it is easy for me to observe children to find out what they can do." (p. 127)

- "I didn't use the individual scores to gauge instruction. I went ahead with my regular routine. Perhaps that is because I taught for so many years." (p. 132)

- After a group discussion, teachers concluded that there had been only one real impact of the BSAP on their school. They explained that there were five regular first grade teachers at their school, but only four classrooms. "So the fifth teacher has focused primarily on working with kids who needed special readiness help. Without the BSAP, this teacher might have focused on gifted and talented sometimes." (p. 147)

- As far as they were concerned it [the readiness test] didn't make any difference at all.
  - group of first grade teachers (p. 159)

- They [four first grade teachers] said fundamentally they hadn't done anything different, that they would have discovered these children [who needed special help] during the very early days of school, that they would have been able to detect their weaknesses and therefore they felt that the fact that they had the test really hadn't made any difference. (p. 163)

While these sorts of comments were the most common reaction to our questions about what difference the readiness testing had made in first grade instruction in the 1979-80 school year, at least some teachers also pointed to three types of change, namely, keeping checklists of children's strengths and weaknesses, emphasizing certain types of instruction, and within or between classroom grouping of children. Between five and ten teachers commented on each of these types of consequences. Apparently referring to the form supplied by the SDE along

with the CSAB manual, several teachers said that they had related CSAB results to the 18 kindergarten objectives. One first-grade teacher, for example, said she had developed a checklist linking results to objectives and used it to decide "which things to stress in class" (p. 56). In a similar comment, another teacher said she made more use of individual worksheets related to the objectives (p. 187). In another district, teachers said they used the readiness test results in conjunction with a readiness "scope and sequence" chart which they already had been using in their first-grade classes (p. 142).

Another practice sometimes affected by the readiness assessment was grouping children for purposes of instruction either within or between classes. One teacher commented, for example, that she did use the CSAB results to assign children to reading groups -- but added that "a group test could have done the same thing" (p. 152).[1] Also, in a case already cited, a first-grade teacher said she grouped children according to CSAB results, but "then found that kids in each group were reading at different levels" (p. 146). Another grade 1 teacher reported using CSAB results for grouping in a different way. She used the information she gained from results in particular items to group children. For example, those who had not yet learned the names of colors were grouped together so that she could work with them on that. This teacher went on to explain, however, that she doesn't begin reading instruction until children have mastered at least 20 letters of the alphabet. She used her own "readiness test" to check their progress, and showed us a copy of it, which she had written out on ditto masters.

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1. This was one of several teachers cited earlier who expressed dissatisfaction with the CSAB because it was individually administered.

In addition to within class grouping, two other types of grouping students on the basis of CSAB results were mentioned to us. First in one district where very few students scored below the cut-score on the CSAB, if any of these had not attended kindergarten, they were placed, with parents' permission, in kindergarten rather than first grade. More widespread was the reported practice of using the CSAB results as part of the processes for selecting children to receive Title I services. Exactly how CSAB results were so used was somewhat unclear, however. In two places they were apparently used as the sole basis for selecting children for Title I services. In the first instance, teachers said that this was unfortunate, adding that "We'd like to see more teacher judgment used in putting kids in Title I readiness classes" (p. 142). In the second case, children were apparently separated into a regular first-grade and a Title I "readiness" class on the basis of whether they scored above or below the cut-score. The Title I class was served by a part-time teacher aide, as well as by the full-time teacher, but again both the regular and the Title I class teachers expressed dissatisfaction with the readiness cut score as the sole means of selecting children for Title I (pp. 224-225).

In two other schools we were told that CSAB results were used only as the first step in selecting students for Title I services (pp. 107, 122). In both cases, children scoring below 88 were retested with another instrument for assignment to Title I -- in one case, purportedly, because "state regulations don't permit using the CSAB for this" (p. 107). Finally, to round out the spectrum of opinion on this topic we were told in another district that there was no connection at all between CSAB results and Title I selection, because the CSAB is "strictly for first grade and

kindergarten teachers to use," rather than for administrative or student assignment purposes (p. 58).

The only other type of instructional consequence reported was the emphasis of skill development in a particular area or with a particular type of material. For example, we asked a teacher who had developed skill checklists whether CSAB results influenced first-grade instruction in any other way; and she replied, "Not really, except perhaps for an increased emphasis on work involving auditory and visual memory" (p. 56). Another teacher in another school said she was emphasizing visual memory in her first-grade class because her children had performed poorly on that portion of the readiness test (p. 61), and another teacher in that school told us that as a result of the CSAB she was trying to make more use of manipulative materials and to emphasize oral language (p. 64). In another district a first-grade teacher said that the CSAB had indicated that children at her school had difficulties with oral language, and that the school was trying "to do lots of additional language work in the first grade" (p. 110).

Those then are the patterns apparent in what teachers' accounts of the strengths and weaknesses of the first-grade readiness assessment, and the differences in first-grade instruction that followed from that assessment. Since we will sum up teachers' views on these matters in section 4.6, let us not pause to do so here, but instead turn to what school administrators told us in response to similar questions.

4.4 Views of Local School Officials. If these were the views of teachers, what were the views of local officials? We talked with about 20

such officials, including five district superintendents and 11 elementary school principals.[1]

The first thing to note regarding the view of these local officials with whom we talked is that, like the views of teachers, they were quite diverse, as already noted in section 4.2 Nevertheless, as we will now recount, the balance of views among non-teaching personnel seemed to be somewhat different from among teachers.

Strengths. The strength of the BSAP and the readiness testing most commonly mentioned by officials was that the assessment served as an aid to teachers in planning and carrying out classroom instruction. Typical of comments in this vein are the following:

- In some ways the BSAP made the purposes of some of the instructional activities going on in first grade a bit more explicit. (p. 52)

- The 18 objectives simply provided a common language to refer to things the teachers were already doing. (p. 52)

- It identifies kids who need help -- analogous to the IEPs for the handicapped. (p. 81)

- The thing that interests me most about minimum competency testing programs . . . is that they force you to ask why you teach what you teach. (p. 98)

- Early childhood teachers in [my] district are getting very excited over individualization of instruction, which is the main purpose of the basic skills assessment program . . . conversation among teachers is much more important than the cut-off score. (p. 103)

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1. We do not identify the views of individuals by the particular roles they served for two reasons. First, there were simply too many different roles to describe separately -- superintendents, assistant superintendents, principals, and various sorts of curriculum specialists. Second, we wish to preserve the anonymity of the people with whom we talked.

- It is hard to come up with any pluses except that it [the CSAB] did call attention to the objectives as set forth. (p. 156)

- It [the BSAP] should help teachers focus on instruction which children need for a good education. (p. 186)

The second most common strand of positive comment by local officials dealt with the fact that the individual administration of the CSAB gave teachers an opportunity to know children on an individual basis. Sample comments along these lines were:

- Teachers were really ecstatic that they had 30 minutes to give to kids on an individual basis to get to know them as a result. (p. 39)

- The strongest feature of the program . . . was that the readiness test gives first-grade teachers an opportunity to sit down individually with each child for 30 minutes. (p. 49)

- The important thing to understand is that the teacher doesn't just get a score from the readiness test. She gets an in-depth view of the child. (p. 50)

Beyond these two general types of comments, strengths of the BSAP and the first-grade readiness tests noted by local officials were more scattered. Nevertheless a variety of other comments on positive aspects of the readiness testing were voiced. One official expressed strong commitment to the CSAB as an individualized instrument (p. 7). Another said that, in contrast to the spring assessment planned under the BSAP for later grade levels, the fall administration of the CSAB made it more valuable as a diagnostic instrument (p. 27). Another commented that while in the past the efforts of the SDE had been segmented and uncoordinated, the BSAP "has really helped to bring things together in terms of a coordinated effort" (p. 9).

Weaknesses. Local officials' views on the weaknesses of the BSAP and the readiness testing also differed somewhat from those of teachers. Easily the most common concern of officials was the lack of information and resources to follow up on the results of the assessment. Here are a few comments along these lines:

- The weakness has been in the administration of the program, not in the test . . . The State Department of Education has fallen down in disseminating information to districts. (p. 50)

- I wouldn't call them weaknesses, I'd call them hesitancies. And the main hesitancy involved communication . . . the district seemed to have inadequate communication concerning what we were supposed to do. (p. 81)

- I don't know of any follow-up procedures for schools scoring low. (p. 115)

- I'm disappointed [in SDE follow-up]. Nobody but no one has come to talk about our CSAB results. No one has even asked: do you have a plan? (p. 116)

- If we don't get funds to do something for students beyond administering, scoring and reporting results to parents, then we've just got a canned test . . . . there is a need for in-service training of teachers directed toward child development and how the test measures this development. [We need] summer programs for children, special remediation in math and reading, new and better ways to meet the needs of the students labeled "not ready," more library books and instructional materials. (p. 187)

- If I could make just one recommendation [regarding the BSAP], it would be for more inservice for teachers regarding identifying ways of meeting children's needs. (p. 217)

- After suggesting that more in-service training for teachers is needed, one official commented that "we're all doing a lot of work for nothing if all that gets done is to set a standard without making sure that everyone meets it." (pp. 113-4)

The second most general sort of complaint among local officials was in regard to the scoring of the CSAB. One official told us

of instances in which parents had been notified that their children were "unready" on the basis of teachers' scoring, but that machine-scored results returned by the SDE in December showed students to be "ready," that is, above the 88 cut-score (p. 221). In another case an official questioned whether it was really necessary for teachers to spend their time scoring the CSAB, when it was to be scored by the state anyway (p. 157). Another official suggested that the CSAB scoring procedures required too much judgment on the part of teachers (p. 117). Still another official suggested that scoring of the readiness test was not done in a uniform way because one district he knows quite well achieved a much higher proportion ready on the test than he thought possible. He implied that cheating might have gone on in the scoring of the test or that schools that had participated in pilot testing of the CSAB might have done better than schools that had not (p. 82). Another suggested that teacher variation in scoring the CSAB may have been a problem (pp. 29-30). In a similar comment another official suggested that some teachers administered the CSAB in a fashion that might be "interpreted as coaching" (p. 202).

Apart from these two types of comments, officials' perceptions of weaknesses in the BSAP ranged widely with regard to both specifics and general attitude. As mentioned already, one official stated broadly that in his view the BSAP has "next to no educational merit" (p. 96). Yet another local official, who had been directly involved in developing the BSAP, said that she had no negative impressions of it at all (p. 39). Between these extremes, officials' concerns touched on several aspects of the BSAP and the readiness assessment. One man said that as far as he

could tell the readiness cut-score on the CSAB was "arbitrarily set" (p. 190). Another official suggested that the basic skills objectives were too broad to be useful (p. 155). In a similar vein another said that he was concerned about the "globalness" of the statewide objectives -- that they were too general to provide much instructional guidance, and that assessment instruments couldn't possibly match such global objectives very well. To communicate his concern he drew an analogy with consumer reports' evaluation of automobiles. He said that the BSAP was somewhat like evaluating dashboard safety in one case but in another turning around and evaluating car handling and acceleration capacity. He suggested that these characteristics do measure the quality of automobiles in some sense, but that they really relate to very different dimensions or specific objectives (p. 26). Another official said that the pressure to move quickly in implementing the readiness testing was a source of concern to parents, teachers and students, and explained "Everything I have to say is colored by the short time we had to implement it" (p. 49).

Several other officials commented directly on the role of the SDE in BSAP implementation. One district official explained that the SDE held a regional conference to explain the requirements of the BSAA sometime after the fall readiness test was administered. He said that people from a number of SDE agencies made presentations -- including representatives from accreditation, curriculum, certification and the legal office. He continued to explain that the basic message he took away from the conference was that "the schools are responsible for their children's progress. It scared us to death." It seemed to him that the state was asking the schools to demonstrate that they had made a responsible effort

to insure each child's achievement of the state's basic-skills objectives. Otherwise, he explained, it might be possible for parents to sue the schools. Since he had received no clear guidelines from the state, he was "still fuzzy about what's required" to meet the school's responsibility. Nevertheless, he continued, as a result of such concerns his school has developed individual student profile sheets, so that there would be some explicit way of reporting to parents which objectives their children had mastered and what the school was doing about those they had not. He said that he felt it was critical to maintain clear documentation on what the school was doing for each child so that it "would not be possible for the school to be taken to court for ignoring children's deficiencies" (pp. 52-53).

Another local official criticized the SDE role as follows. He said that he didn't "know of any follow-up procedures [by the state] for schools scoring low" on the CSAB (p. 115). He said that he would like to help in evaluating student progress over the school year, but that no one at the state level had mentioned doing anything like this. Instead, he continued, the state "has been spending its time studying the first-grade CSAB scores and coming up with generalizations such as: Children who attended kindergarten scored higher on the CSAB than children who didn't attend kindergarten -- or whites scored higher than blacks, etc." (pp. 116-117).

A few other isolated criticisms of the BSAP and the readiness testing were offered to us by local officials -- for example, that the CSAB didn't represent a very good match with the kindergarten objectives (p. 27), and that the CSAB results showed simply which children had not attended kindergarten.

Differences. If these were the strengths and weaknesses that local officials saw in the BSAP and the readiness testing, what difference did they see it making in terms of instruction? In brief, their perceptions were uncertain. Few could point to any specific changes in first-grade instruction that results from first-grade readiness testing, though several, as noted above, suggested possible consequences. The attitudes of local officials on this point was perhaps typified by the official who told us that she felt confident that the CSAB results were making a difference in first-grade instruction, but that in actuality she really didn't know how teachers were using the first-grade results (p. 39). Another person, questioned as to whether the BSAP had led to any changes in first-grade instruction, explained that "it was not necessary to make any adjustments in the first-grade curriculum" because materials already in use focused on many of the same objectives as the BSAP (p. 52). Another official explained that he had "gotten kindergarten teachers at his schools together to discuss some of the questions raised" by the assessment results, but was uncertain whether or not kindergarten teachers had additional responsibilities as a result of the BSAP.

4.5 Parent Involvement. As explained in section 4.1, when we first wrote to district superintendents about our case study, we stated that we would like to talk with three types of people, teachers, administrators, and parents. As a result, we did meet and talk with about ten parents -- to be specific, mothers -- of kindergarten and first-grade children. Nevertheless, the first thing to be noted regarding these talks with parents was that they were held in only three of the six districts we visited. We

did, however, talk with teachers and administrators in all six districts about the parent involvement connected with the BSAP. We first summarize what we learned from our conversations with parents, and then recount what others said about parent involvement, both with respect to the BSAP and in the schools generally.

The views of parents with whom we talked can be summarized very simply as almost altogether uninformed about the BSAP but vaguely supportive of the idea behind the program. Here is a sampling of what parents told us about the BSAP and the readiness testing.

- One parent of a first-grader, a local PTA president, said she didn't know very much about the BSAP, but liked the idea because she felt it was going to help children. (p. 193)

- Asked what she thought about the BSAP and the first-grade readiness testing, a mother of a kindergartener said she "didn't know much about that." When the program was explained she said that she thought she recalled her child's teacher saying something about her daughter not being ready for first grade. She said she was surprised by this because she had always been told the child was doing well and that she seemed to be "right smart." Asked how she felt about children being labelled "ready" and "not ready," she commented, "well, I don't think it's bad. I think if you're going to label them, first grade is the place to do it." (p. 204)

- Another kindergarten mother, asked about the BSAP, said she knew very little about it, but thought she had read something in the newspaper about the test. She went on to comment, however, that since tests are required in many walks of life, "it's good to get children off to an early start by giving them tests." (p. 205)

- Asked about the first-grade readiness test, another parent said she had never heard of it. She went on to explain that quite apart from tests, her son's school performance was sometimes very hard to understand. "One day he'll come home with everything wrong on his worksheet. But the next day he'll come home with everything correct. I said to him, somebody else must have done it for you." The boy answered, however, that no, he had just done it all right that day. The mother said that it was hard to understand how her son could get everything wrong one day and everything right the

next. She suggested that it seems simply to depend on whether he's really interested in his work or not. (p. 231)

- Another first-grade mother, after explaining that she never heard of the readiness test, said that the thing she doesn't like about the school is that it has too many different categories of children. She said that she doesn't care how good a teacher is, if she has too many different kinds of children -- high, low, regular, special program kids -- it's impossible to help them all. She went on to explain that she really resents special programs and money to the gifted because she thinks her son is good but not quite good enough for the gifted program, and she resents the fact that her tax money is spent on a special program for the gifted when her child would probably benefit from the program as well. (pp. 232-233)

Several points may be drawn from such observations by parents. First is that in the three districts in which we met with parents, parent involvement in the schools seemed to be relatively high. Second is that the parents with whom we talked were doubtless among the most involved of parents. As noted, one served as local PTA president. Yet despite this, these parents seemed to know very little about the BSAP and the readiness assessment.

In the other three districts we visited, comments by teachers and administrators clearly suggested that parent understanding of the BSAP may have been no greater than in the districts where we talked with parents. In one district, for example, a teacher of a first-grade class in which only 2 of 25 children scored above the cut-off score explained that children's parents were not as disturbed by the readiness test results as parents of children in other first-grade classes, "since their expectations were lower" (p. 89).

Another teacher in the same district, asked to explain the notices that were sent home to parents whose children had scored below 88 on the CSAB commented as follows:

> The only problem with the notice [was] why was the cut-off score 88? Even parents whose children got above the cut-off [asked] what does the score mean? They were concerned that their children hadn't gotten a perfect score, and no one could explain how a score of 88 meant ready. (p. 62)

A third teacher in the same district observed that the parents of her children are generally concerned parents. "They're not upset by the CSAB testing program and they're not against it." She said that in general the parents of children who scored above the readiness cut-off already knew how their children were doing, and so the test didn't really provide any additional information for them except in a few cases. However, she continued, "the parents whose kids scored below 88 were . . . scared that their children were going to be put back into kindergarten" (p. 67).

In another district, an official told us that the more intelligent parents were glad to know the CSAB test results and seemed to respond to the results but the "poor, deprived parents couldn't give a damn" (p. 213). He commented too that his district had experimented with a program of parent volunteers, but that "it's almost impossible to get parents to participate" (p. 217).

Another official in this district suggested that the requirements of the BSAP may have helped to alienate some parents from the school. He showed us a card that had been sent to the parents of children who had been shown to be unready on the first-grade screening test, which recommended that children get a complete physical. He said that he was not sure that this was an appropriate place or way to make such a recommendation. He said, "If I got that message, I'd think there was something wrong with my

child." He commented that parents' reaction to the letter was fairly predictable. A couple of parents called him to inquire what was really wrong with their child and whether it was really necessary to arrange for a physical exam. He explained to them that the state required him to advise them to have their child examined. As a result some parents spent $20 for physical exams, only to find out that there was "absolutely nothing wrong with them." One parent called back to complain "Next time you tell me something's wrong with my child, you check him first to make sure." He said that this father let him know very strongly that he had "just wasted $20 he did not have." This official observed that "most parents simply don't have $20 to spend on a physical exam of the sort they thought was required to get as a result of the screening test" (pp. 218-219).

This episode may have been unusual, but it seemed to typify the alienation between home and school that apparently exists in some districts. In other districts, the situation is quite different. In one district we visited, for example, teachers told us that they regularly have parent-teacher conferences during the first week or two of school. Parents of children who have been designated unready on the CSAB, are told of the areas in which their children are strong and weak and are given materials with suggestions for what they can do to help their children (pp. 157-158). Apparently, however, this practice had been in effect before implementation of the BSAP, because teachers also told us that they had had a readiness screening program before 1979, and that the state-sponsored first-grade screening instrument "didn't make any difference at all" in what they were doing (p. 157).

So, as with many other matters discussed in the districts we visited, local reactions and practices concerning implementation of the BSAP seemed to vary widely with respect to parent involvement. Before we discuss these variations further, and explain what we make of them in chapter 5, let us first turn in section 4.6 to recap the broad patterns of what teachers, administrators and parents told us, and comment briefly on their meaning.

4.6 Summary. In the last three sections we recounted in some detail what teachers, local officials and parents told us of their views on the BSAP and the first-grade readiness testing part of it, which was implemented statewide in fall 1979. In this section we summarize the broad patterns of comments by these people. In doing so, we also comment on possible sources of bias in what we learned. The reason for this is that we have no guarantee that the views of people with whom we talked are necessarily representative of the views of other South Carolinians generally. While we selected districts to visit which spanned a range of the 92 districts in the state, the teachers, administrators and parents with whom we talked in these districts were not systematically selected. Rather, these people were selected, and interviews with them arranged, by the superintendents with whom we first made contact in each district. It is possible then that people interviewed may not have fully reflected the views of others in the same districts, or that because of the relatively brief nature of our interviews, felt constrained in giving us their full or completely candid views on the matters we discussed.

Observations. Before recounting the general views of teachers, administrators and parents, let us recap three overall observations which we

offered at the start of this section. First views expressed concerning the BSAP and the readiness assessment were tremendously diverse; in extremes ranging from the man who "heartily approved" of the BSAP because it could help improve instruction (which he saw as the main mission of the schools), to another individual who saw the program as "another layer of crap . . . pointless . . . superficial" and "political."

Second, at the local level the BSAP program and the first-grade assessment rarely seemed to be viewed as isolated endeavors. Rather, in practice they seemed to be intertwined with, influenced by, judged in terms of a variety of local, state and federal educational programs. In one district, for example, which previously had developed its own first-grade screening program keyed to the local first-grade curriculum, the BSAP readiness instrument seemed to be viewed as a step in the wrong direction, or at least only as something to be tolerated because of state requirements, but not really of much use. More widely noted was the connection between the BSAP and the Title I program. The first-grade readiness assessment was widely cited as part of the process by which children were selected to receive special Title I services in the first grade.

Our third general observation was simply that the social and educational conditions in the districts visited were remarkably diverse. In one district elementary schooling was totally segregated by race -- with the public school 100% black and white children attending a local "academy."[1] In a nearby

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1. Because of background data in terms of which districts were selected, we were of course aware that the school population in this district was almost completely black. What came as a surprise to us was that this was because of the existence of a private white academy, rather than because of demographics.

district we visited, however, even though the community seemed quite similar demographically, the elementary schools were fully, and apparently altogether successfully, integrated.

The point of these three general observations is simply this. It is tremendously hard to draw meaningful generalizations about how the BSAP and the readiness assessment are working in practice; because of the limited sample of districts and schools we visited, because of the markedly varied views expressed about it, because of the myriad other programs which were intertwined with it at the local level and because of the remarkably diverse educational and social conditions apparent in the districts we visited, conditions clearly influenced not only how the BSAP was working in practice, but also how educational institutions generally seemed to be functioning. With this caution in mind let us now summarize briefly the general patterns apparent in the views of teachers, administrators and parents with whom we talked.

Teachers. As recounted in section 4.3, teachers' views on the BSAP and the readiness testing were quite diverse. Nevertheless, among the 40 teachers with whom we talked, the following strengths and weaknesses commonly were identified.

The most commonly mentioned strength of the readiness assessment was that the individual administration of the CSAB allowed teachers time to get to know first-graders on an individual basis, at the start of the school year. Another commonly mentioned strength of the readiness assessment was the CSAB instrument itself, both because it was individually administered and because it seemed better to several teachers than readiness instruments previously used in their schools. A third strength of the BSAP in the view of several teachers was that the kindergarten objectives (in terms of which the

readiness instrument was selected) and the CSAB instrument itself aided them in thinking about why and how they were teaching what they were teaching.

The main weaknesses of the readiness assessment identified by teachers curiously enough were also connected with the CSAB instrument. About half of the teachers with whom we talked voiced concern over the scoring of the instrument, that it was sometimes unclear how to score particular responses, and over the awkwardness and time-consuming nature of deriving and recording overall scores from the instrument. The second major weakness identified by teachers was that the CSAB instrument -- or at least the ready/unready designations derived from it -- did not correspond well with how children actually performed in first grade or that the instrument was not terribly relevant to first-grade instruction.

The third general question put to teachers was what difference the readiness assessment had made in how first-grade instruction was carried out. Responses indicated generally that little if anything had changed directly as a result of the readiness assessment. Some teachers pointed out that the readiness test results were used to help select children to receive Title I services, but few specific comments were offered as to how classroom instruction itself had changed. Sample comments of this sort were that teachers kept checklists of children's performance, or that teachers gave more emphasis to skill areas, such as visual and auditory memory, in which children generally scored low.

We should reemphasize that these general patterns were by no means uniform among teachers with whom we talked. For the majority of comments regarding strengths, weaknesses, and differences, opinions offered by some

teachers were contradicted either directly or indirectly in the views of at least one other teacher. Nevertheless, the broad patterns of comments offered to us by more than two or three teachers were those recounted above.

One final point of interpretation should be noted with respect to teachers' views. In one interview, the teachers indicated that they were somewhat reluctant to communicate to us their real views on the matters we were discussing. We had attempted in beginning this interview, as in most others, to communicate the purpose of our visit, namely that we were conducting an independent case study of the BSAP. Nevertheless, one teacher clearly seemed to associate our visit with ones by federal and state officials responsible for monitoring program implementation. Several times she reiterated her concern as to whether we were from Washington or Columbia, and only after repeated assurances that we were not connected with any state or federal agency did she share with us her quite negative opinions regarding the BSAP -- namely, that so far she viewed it as more of a hindrance than a help to good teaching (pp. 227-228). If this teacher's suspicion was shared by other teachers with whom we talked, it raises the possibility that we may have received an over-rosy portrait of how teachers viewed the BSAP and the readiness assessment. If teachers felt that we were somehow monitoring their implementation of the BSAP then they obviously would have been inclined to describe it as they thought it was <u>supposed</u> to be working rather than how they experienced it in actuality. We do not, of course, have any way to be certain about the existence or extent of such possible bias. We can only explain that our questions -- asking broadly about strengths, weaknesses and instructional differences -- were designed to

avoid prejudicing answers in any particular direction, and that numerous teachers did offer us negative as well as positive comments regarding the BSAP.

Local School Officials. We talked with about 20 local school officials other than teachers -- including district superintendents, principals, and curriculum specialists. Again, views of these people range quite broadly, but there were several themes apparent, with respect to both positive and negative aspects of the BSAP and the readiness assessment.

On the positive side, two types of comments were most common. First was that the readiness assessment served as an aid to teachers in planning and carrying out instruction. Second was that the individual administration of the CSAB gave teachers an opportunity to know children individually.

On the negative side, local officials most often complained about the lack of information and resources to follow up on the assessment results. The second most common complaint by local officials concerned scoring of the CSAB -- that it was time-consuming and called for too much subjectivity on the part of teachers, for example. Other negative commentary dealt with the feeling that the statewide objectives were too broad to be useful, and the lack of clear guidance and follow-up information from the SDE.

Regarding differences which the readiness assessment had made in first-grade instruction, few officials could point to specific changes, though officials' comments on the strengths of the assessment program clearly suggested that in general the assessment results were expected to promote improvement in instruction.

We have no cause to suspect that officials were reluctant to give us their candid views on the BSAP in the way that at least some teachers seem

to have felt constrained. While there may be a fair portion of Pollyanna in all school officials -- indeed, some recent research literature suggests that tenacious optimism may be an important characteristic of good school principals -- some of the things officials told us clearly suggest no lack of candor. If the man who characterized the BSAP as "another layer of crap" was shading his opinion, for example, one can hardly imagine how he might more candidly have communicated his view.

Parent Involvement. We talked with relatively few parents -- only ten and only in three of the six districts visited. The views of these individuals can be easily summarized. They were almost altogether uninformed about the BSAP, but nevertheless seemed largely supportive of the idea of the assessment program, when it was described to them.

The views of these parents may not of course be very representative of the views of parents generally. First, the fact that they would come to school to talk to us as strangers was in itself an indication that they were not altogether typical of parents generally. Also, the three districts in which parent interviews were arranged for us seemed to be districts in which home-school ties were relatively strong. In one of these districts, for example, teachers indicated that even before the BSAP was in existence, they regularly had conferences with mothers of first-grade children within the first week or two of school, and gave them advice and materials to help children at home in the areas in which they were weak. In another district, however, one in which no parent interviews were arranged for us, we were told that "it was almost impossible to get parents to participate" and that "poor, deprived parents couldn't give a damn" (p. 213).

Though the parents with whom we talked thus likely are not representative of parents generally, their views on the BSAP -- or more specifically their unfamiliarity with it -- in a way seems all the more striking. For it is hard to imagine that parents who were less involved with the schools their children attend, in districts which generally seem to have less contact with parents, could be any more knowledgeable about the BSAP or the readiness assessment implemented in the fall of 1979. This interpretation is, or course, somewhat speculative, but it seems to us that parent involvement is one of the key issues to be addressed in efforts to improve schooling and learning, particularly learning of young children.

Commentary. Before turning in chapter 5 to discuss general conclusions, let us pause here to comment briefly on three of the specific points raised by teachers and local school officials.

First, the diversity of opinion regarding use of CSAB results for selecting children to receive Title I services may be explained by the way Title I programs work. As SDE officials explained to us, state policy does not directly require or forbid use of readiness test results in selecting children to receive Title I services. The SDE has made provision for districts to use readiness test results as part of Title I selection, so as to help avoid over-testing of first-graders, but whether and how districts do so depends on district Title I plans which have to be submitted to the SDE for approval. It was suggested to us that some approved district Title I plans may not have called for use of readiness test results in the Title I selection process, and it may have been in this sense, that the state was perceived as not having approved of using readiness test results in Title I selection.

This interpretation is unclear, however, because, there also appears to have been some simple misunderstandings of less complex issues. Recall, for example, the comment by one teacher criticizing a readiness test item

which asked children for a "definition" of the word apple. This refers to item 54 on the CSAB, which does not actually use the word "definition." Instead the test administrator is instructed to ask either "what is an apple?" or "What does 'apple' mean?" Moreover, the scoring instructions for this item indicate that a "functional (use) definition" response by a child (Boehm and Slater, 1974), such as "an apple is what you use to make a pie," ought to be given full credit. What is unclear, of course, is whether the teacher who cited this item to us merely misremembered the item, or had originally misunderstood the scoring of the item.[1]

In at least some instances it seems clear that teachers did, in fact, misunderstand instructions for scoring the readiness instrument. SDE officials, for example, in commenting on possible descrepancies between teacher-scored, and state-scored CSAB results told us that in some instances teachers derived scores greater than 117, which should have been the maximum possible score.[2]

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1. There is, of course, a third possible explanation for the discrepency between what the teacher told us about this item and the actual test instructions for it: namely that we did not get the teacher's account correct in our interview notes. We checked on this possibility by triple-checking original notes regarding this conversation. The check suggested the account to be accurate, because the item was mentioned by the teacher as a means of illustrating the concern over subjectivity in scoring the CSAB.

2. The apparent reason for this occurrence was that in a few cases teachers did not derive total scores from the individual pupil response sheet. Instead they derived a total score from the individual student worksheet. This worksheet was a form for summarizing scores in terms of the 18 kindergarten objectives. Since some CSAB items were listed more than once, as relevant to more than one objective (as indicated in Table 6), it would thus be possible to obtain a score of more than 117 by adding up scores from the worksheet. SDE officials have tried to clear up such potential misunderstandings for subsequent administrations of the readiness instrument

Such misunderstandings suggest that there naturally were some start-up problems in the first year of statewide implementation of the readiness assessment (a point to which we will return in chapter 5), but they also indicate that teachers' and local officials' comments should not always be taken simply at face value.

V. CONCLUSIONS

Given the diversity of opinion we encountered concerning the BSAP, the newness of the program, the diversity of circumstances apparent in the school districts of South Carolina, and the limited nature of our investigation, what can we say in conclusion about South Carolina's version of competency testing?

In a phrase, the answer is "nothing much with great certainty." Nevertheless, in this concluding section we will offer some tentative observations as a conclusion to this report. In doing so we attempt to illustrate issues raised in the six districts we visited by drawing on available documentary evidence about education in South Carolina statewide, and on relevant educational research literature. Our concluding comments are organized into six categories entitled:

5.1 - From Columbia to the Countryside.

5.2 - Ready for Readiness?

5.3 - Assessment and Learning.

5.4 - Home and School.

5.5 - Suggestions.

5.6 - A Final Note.

Since our inquiry focused most directly on the first-grade readiness assessment portion of the South Carolina BSAP, this is naturally the aspect of the BSAP about which we have the most to say.

5.1 From Columbia to the Countryside. Our first general observation is that overall impressions of the BSAP vary substantially in terms of the perspective from which it is viewed. The picture of the program which we gained from Columbia in talks with a variety of state officials and from

reading available documentary evidence was overall quite rosy. However, as related in chapter 4, from the vantage point of district personnel with whom we talked, the picture of the BSAP, or at least the readiness testing portion of it implemented in 1979, was more mottled. Negative comments and perceptions of weaknesses seemed nearly as plentiful as positive comments and perceptions of program strengths. Therefore in this section we attempt to sum up some of our general impressions from these two perspectives.

The View from Columbia. From the perspective of Columbia, the answer to the question implied in the title of this report -- namely, the BSAP, how progressive an approach to minimum competency testing? -- is quite simple. It is that as compared with other state competency testing programs, the BSAP is progressive in a number of respects. As we pointed out in the introduction of this report, from the outset of our inquiry the South Carolina program seemed a progressive approach to competency testing because:

- Unlike some other testing programs, the South Carolina assessment is keyed to particular educational objectives.
- The BSAP focuses on assessment early in children's school careers rather than waiting until later grades when their educational trajectories may be harder to change.
- The assessment program aims at providing information useful in furthering children's development and learning rather than simply serving as a device for controlling grade promotion or award of high school diplomas.

In addition to these features of the BSAP, however, we have learned of several aspects of the program which seem both unusual in terms of state competency testing programs generally, and altogether commendable. We mention here three key examples.

First, recall the process leading to the identification of statewide kindergarten objectives, described in section 3.3. Although the SDE began with the idea of identifying kindergarten objectives keyed to the three basic skills mentioned explicitly in the BSAA, namely reading, writing and math, consultation with early childhood educators and analysis of alternative objectives led to the specification of objectives spanning a broader set of development aims, clearly representing a fuller range of aims of early education.

A second example is the process by which the first grade entry test was selected and pilot tested. Instead of settling simply for a group-administered instrument, which clearly would have been simpler from the point of view of central administration, an individually administered instrument was selected because, as we recounted in section 3.3, group administered instruments were judged to have "response modes" which are inappropriate for young children. Such a change, resulting not from administrative convenience, but from educational appropriateness, seems to us both reasonable and commendable. Also, the process did not simply stop with selection of the individually administered CSAB, but instead the CSAB was pilot tested and revised. Teachers were asked to try out the instrument with kindergarten children and to comment on items or aspects of the instrument which seemed inappropriate or possibly biased against certain types of children. As a result of such pilot testing, the instrument was revised, again as recounted in section 3.3, to make it more appropriate for children in South Carolina. Such pilot testing of test instruments, including observation of how individual children interpret and react to test questions has been recommended by experts such as Anne

Anastasi (1976, p.138) as an appropriate part of test validation, but we note by way of highlighting this aspect of the BSAP, that many test developers, including many commercial ones, do not follow such procedures.

The third feature of the South Carolina program, which seems to us as commendable as it is unusual, is that the BSAP is not simply an assessment program. Rather as called for in the BSAA, the SDE has been field testing instructional programs designed to raise the student performance to statewide standards (or with respect to the readiness program, to provide appropriate developmental activities). Also, in response to section 8 of the BSAA, the SDE is apparently beginning to monitor and evaluate curriculum and instructional methods of schools in the state to insure compliance with the Basic Skills Assessment Act. These efforts were only beginning to get underway in the 1979-80 school year when we visited South Carolina, and hence we know little about them. Nevertheless, we point attention to them because it seems clear that if the South Carolina assessment program is to have the intended effect of improving learning then what follows after the assessment will surely be of more consequence then the assessment itself.

Views from the Countryside. It is from this perspective that the BSAP seems to take on a different coloration in the eyes of teachers, local administrators and parents with whom we talked. As we recounted in chapter 4, many of the people with whom we talked saw bright spots in the program -- variously called strengths, benefits or positive aspects -- but most everyone also perceived dull spots and discolorations -- variously described as weaknesses, shortcomings, or hesitancies. In part this contrast in perspectives -- a fairly rosy portrait apparent in

Columbia, but a more mottled picture painted in the countryside -- may be explained by the newness of the BSAP -- that it was only in its first year of statewide implementation in the 1979-80 school year when we visited South Carolina. Indeed, when we visited with officials in Columbia at the close of our weeklong visit to the Palmetto state, and explained that the local picture of the BSAP seemed less rosy than the view from Columbia, state officials suggested that locally perceived problems may arise from lack of communication and from overmuch impatience. One suggested, for example, that the "biggest danger" in the BSAP was the "risk of impatience once the assessment itself was in place" (p.246). When it was pointed out that the state efforts to pilot test instructional programs and to develop and distribute materials to be used in following up on assessment results were apparently not known to teachers and local officials, it was suggested that communication on these matters between Columbia and local districts may not have been as full as it might have been (p.170).

Doubtless there is some validity to this interpretation. Among teachers and local officials with whom we talked, the BSAP seemed to be widely viewed as a testing and assessment program and not as a broader endeavor to improve instruction and learning. The new state efforts to develop and distribute instructional materials were indeed not widely known to educators.

Nevertheless, far more is involved, we think, than mere communication. As we suggested several times in chapter 4, the readiness portion of the BSAP seems to be working very differently in the different districts we visited, and such differences clearly seemed to relate to local educational

conditions. It was, for example, in the district scoring lowest on the fall 1979 readiness test that a teacher told us that the readiness test was more a hindrance than a help (p.227); and that local officials told us that some parents of "unready" children had been alienated by the state-required notice that they get a complete physical for their children, and that "we're all doing a lot of work for nothing if all that gets done is to get a standard without making sure that everyone meets it" (p.224). In short, it seems that in its first year of statewide implementation the BSAP may be working out worst, or at least, least well, in districts that need help the most.

We state this observation as a suggestion rather than as a firm conclusion for the reason that our visit to only six of South Carolina's 92 districts obviously limits the breadth of our inquiry. Nevertheless, we have tried to illuminate this issue by examining documentary evidence on all of the state's school districts. Specifically, we compared data on district level results on the fall 1979 readiness test (illustrated in Figure 2) with a variety of background data available on South Carolina's school districts and counties. We sought to answer the question: What district characteristics, if any, seem to explain the fall 1979 readiness test results? Specifically we examined data on 20 selected characteristics of South Carolina's 92 school districts and 46 counties, in an effort to find ones that were related to the fall 1979 readiness test results. Table 10 shows the correlations between the 20 variables we examined and the fall 1979 readiness test results. As these data show, most of the characteristics we examined are quite strongly correlated with readiness test results. Eight characteristics of school districts showed

TABLE 10: Correlations Between Fall 1979 CSAB Readiness Test Results and District Characteristics[1]

Variable Label	Description	Correlation
NWPOP	Percent of population nonwhite 1978 (c)	-.51
UNEMPLD	Percent of labor force unemployed 1978 (c)	-.35
INCOME	Per capita personal income 1977 (c)	.54
PRVSCH	Percent of school membership in private, special or denominational schools 1978-79 (c)	-.31
NWST	Percent of enrollment classified as nonwhite 1978-79	-.67
WHTCHNG	Percent change in white enrollment 1969-79	.61
NWCHNG	Percent change in nonwhite enrollment 1969-79	.34
LUNCH	Percent of students eligible for free or reduced price lunches 1978	-.68
KMEM	Membership kindergarten classification 1978-79	.04
RATIO	Ratio of school membership to elementary and secondary teaching staff 1978-79	.05
TEACHOUT	Percent of teachers teaching out of certification at least 50% of time 1978-79	-.34
SALARY	Salary schedule for teachers with BA degree 1978-79	.53
LREV	Revenue per pupil from local sources 1978-79	.53
FREV	Revenue per pupil from federal sources 1978-79	-.60
TREV	Revenue per pupil, local, state and federal 1978-79	.03
TAX	Total tax levy in mills, 1968-69 to 1978-79	.34
TAXEFT	Local tax effort for 1978-79	.11
EXPEND	Operating expenditures per pupil for instructional services 1978-79	.06
KENROLL	Kindergarten enrollment 1977-78	-.07
TURNOVER	Teacher turnover rate from 1977-78	-.22

1. These data were drawn from Hill, 1980, pp.5,33,36,48,56,60,64,94,98,154,166, 170,186,194,198,230,238,254, and Hill 1979, pp.144,199.
See these sources for a fuller description of the variables. All variables are defined at the district level except those marked (c) which are county level variables.

correlations with readiness test results of more than .50.[1] The variable most strongly correlated with readiness test results was percent of students eligible for free or reduced price lunches in 1978, with a correlation of -.68. In other words, the larger proportion of students in a district eligible for free or reduced lunches, the larger the proportion of first graders scoring below 88 on the CSAB.

What does this mean? Since eligibility for free or reduced lunches is determined to a large extent by children's family income, we interpret this statistical relationship simply to mean that average district performance on the CSAB in fall 1979 to a large extent reflected average family income.[2]

The second highest correlation with CSAB results was for the variable NWST -- the percent of district enrollment classified as nonwhite in 1978-79. This correlation is not surprising since at the district level the relationship between nonwhite enrollment and lunch eligibility is very strong (specifically the correlation between LUNCH and NWST is .95).[3]

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1. Given that we are dealing with a sample of 92, correlations greater than .173 are statistically significant at the .05 level. However, it should be noted that for variables defined at the county level, we do not actually have 92 independent cases, and hence because of redundancy in county-level variables used as measures of districts, levels of statistical significance for these data are somewhat lower for particular levels of correlation.

2. INCOME showed a lower correlation with district-level CSAB results than did LUNCH (i.e. correlation of .54 as compared to -.68). The lower correlation for INCOME was presumably due mainly to two factors: 1) this variable was defined at the county instead of the district level; and 2) this variable represents income of counties as a whole, rather than simply that of families having children in school.

3. It is important to note that such correlations are apparent at the district level. One should not commit the ecological fallacy of inferring that because there is a strong relationship between variables defined at the district level that an equally strong correlation would be apparent at lower levels of aggregation, for example at the school, class or individual levels.

We also sought to explore what combination of background variables might explain the district level results on the CSAB in fall 1979. We did this via a statistical procedure known as multiple regression analysis. There are a number of ways in which regression analysis can be and were applied to these data, but let us simply explain the most straightforward applications we conducted.[1] If all 20 variables listed in Table 10 are entered freely into a multiple regression equation to explain variation in district level readiness test results, they yield the results shown in Table 11. As this table indicates, just four of the twenty variables listed in Table 10 account for more than fifty percent of the variance in district results on the fall 1979 readiness test. These four variables are 1) percent of students eligible for free or reduced lunch; 2) local revenue per student; 3) percent change in white enrollments 1969-79, and 4) percent of population classified as nonwhite. These results indicate

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1. As suggested, we tried several different regression analyses with the data described in Table 10 including several different stepwise regressions and a communality analysis. Most of these would take too much space to explain here. Nevertheless, let us at least briefly mention one analysis which attempted to bring evidence to bear on the issue raised by several people with whom we talked -- namely, whether districts which participated in the pilot testing of the CSAB in spring 1979 might have had an unfair advantage on the fall 1979 statewide administration of the CSAB; and as a result might have obtained unusually high district results on the fall 1979 readiness test results. What we did was to obtain a list of schools which participated in the spring 1979 pilot testing. We then developed equations which used district characteristics listed in Table 9 to predict how well districts performed on the fall 1979 readiness test. Then we examined the residuals for the districts which contained schools which participated in the spring 1979 pilot testing. The residuals were simply the amount higher or lower, on average, that the district performed than was predicted on the basis of district characteristics. If districts participating in the pilot-testing had gained an unfair advantage on the fall 1979 administration, we expected that residuals for these districts would have been generally positive. We found no evidence of this. Districts which had schools participating in the spring 1979 pilot testing showed as many negative as positive residuals. Thus, insofar as can be determined on the basis of indirect evidence available in terms of prediction equations of district level performance, we concluded that there is no indication that districts participating in the CSAB pilot testing did better than could have been expected on the fall 1979 administration. We should note, however, that this analysis is only a very crude test of this issue.

that the 1979 readiness test results reflected some fairly basic demographic characteristics of South Carolina's school districts; namely, the economic welfare of families and communities (the third variable, WHTCHNG, reflects changes in white enrollment in the districts over the last decade).[1]

To help communicate the meaning of these results, we simply show in Table 12 five characteristics of six of South Carolina's school districts, specifically the three with the highest, and three with the lowest results on the fall 1979 readiness test results. As these data indicate there is not a statistically perfect relationship between fall 1979 CSAB results and demographic characteristics. Note, for example, that the district ranked No.3 on CSAB results had a county nonwhite population of 60% while the corresponding figures for two of the lowest scoring districts were 52% and 42%. Nevertheless, for other variables there is a fairly strong relationship. Specifically, districts which had small proportions of children designated as "ready" tended to have large percentages of children eligible for free or reduced price lunches, low local revenue per student, decreases in white enrollments over the last decade. These data seem to us to help explain why the readiness testing portion of the BSAP may not be viewed as very helpful in the educationally and financially poorer districts of South Carolina. In a sense the 1979 district-level results seem merely to document what was or might have been already known on the basis of other data -- that

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1. Why WHTCHNG enters the regression equation, but NWCHG does not is a puzzle. Very likely the difference reflects different factors in different districts; for example, racial desegregation in some districts and continuing segregation in others.

TABLE 11: Summary Table of Multiple Regression Equation to Predict District Results on Fall 1979 Readiness Test. 1/

Variable	Multiple R	R Square	RSQ Change	Simple R
LUNCH - Percent of Students eligible for lunch	.68	.47	.47	-.68
LREV - Local revenue per student	.72	.51	.05	.53
WHTCHNG - Percent change in white enrollment	.74	.55	.03	.62
NWPOP - Percent of population nonwhite	.75	.57	.02	-.51

1. Listed are all variables which contributed an increment of at least 1.0% to R-square. Figures in this table do not add up exactly due to rounding. Other variables listed in Table 9 entered into the regression equation in the following order -- TAX, NWCHG, FREV, TREV, INCOME, NWST, PRVSCH, TAXEFRT, SALARY, NEWROLL, UNEMPLD, TEACHOUT, KMEMBER, and EXPEND, altogether contributing to a total R-square of 0.62.

TABLE 12: Characteristics of Districts with Highest and Lowest Average Results on Fall 1979 Readiness Test.

Ranking on Fall 1979 CSAB Results	Percent Ready of Those Tested in District Fall 1979	Percent Eligible for Lunch Oct. 1978	Local Revenue Per Student 1978-79	White Enroll. Change 1969-79	County Pop. Percent Nonwhite 1978
1	88%	7%	$802	+240%	6%
2	84%	38%	760	+16%	30%
3	79%	63%	540	+1.5%	60%
90	28%	95%	300	-56%	52%
91	28%	76%	273	-25%	60%
92	23%	77%	422	-37%	42%
Statewide					
- Average		48%	484	-11%	31%
- District (or county) median		55%	423	-17%	37%

Sources: Hill, 1980, pp. 5, 60-61, 94-95, 186-87; and SDE, "Cognitive Skills Assessment Battery (CSAB): Preliminary Results from Fall 1979 Administration" 12/14/79.

districts with high proportions of disadvantaged students have high proportions of students who need special assistance. If the BSAP merely documents problems that were already known to exist, and does not provide clear assistance in remedying those problems, it is easy to understand why the program may be viewed, as one teacher in the economically poorest district we visited said, as more hindrance than help.

5.2 Ready for Readiness? The foregoing analysis is, of course, somewhat speculative. It should be acknowledged, for example, that the data on district percentages of children designated as ready or unready on the fall 1979 readiness test do not necessarily reflect the educational status or readiness for further instruction equally well in all of South Carolina's school districts. Indeed, in this respect, we would like to raise the question of whether a single statewide readiness cut-off score on a test such as the CSAB makes sense. We discuss this question in terms of the following four points:

1) There are alternative ways of setting a cut-score on the basis of the CSAB pilot test data which would have led to different results on the fall 1979 administration.

2) The same scores on the CSAB may represent quite different things for children having differing previous educational experience.

3) The same scores on the CSAB may represent different degrees of readiness in light of differences in the first grade instruction in different schools and districts.

4) Special problems in the assessment of young children limit the utility of any standardized assessment of them.

In short, we are questioning whether the state of South Carolina, in light of the diversity of children's pre-first-grade experience, variation in the nature of first grade instruction, and special problems in standardized assessment of young children, is "ready" for a single "readiness" score on a statewide test.

Alternative Ways of Setting Readiness Cut-off Scores. In the recent literature on minimum competency testing, the issue of how to determine cut-off scores is a prominent topic (see generally, Jaeger and Tittle, 1980; and Airasian, Madaus, and Pedulla, 1979; or specifically on the topic of setting cut-scores, Shepard, 1976; Glass, 1978; Hambleton, 1980; Subkoviak, 1980). We will not attempt to review the technical literature on the cut-score issue here, but instead simply note Gene Glass's observation that "It is the mathematicians and other simplifiers who prematurely translated a tentative notion . . . into the idea of cut-scores and mastery levels" (Glass, 1977, p.14). Glass's point is that there is simply no scientific or altogether objective way of setting cut-off scores on tests; rather setting of such cut-off scores is arbitrary, based at root on subjective judgment.

In this light let us simply illustrate several alternative ways in which a cut-off score might have been set on the basis of the data from the pilot test of the CSAB in spring 1979. The first thing which caught our attention about the cut-score set on the basis of this pilot test data was that while in the independent judgment of teachers, 1333 or 85% of the 1564 children included in the pilot study were rated as ready for first grade (see data in Figure 2), the cut-off score of 88 on the CSAB led to a classification of only 1076 or 69% of these same children as ready for first grade (see Table 7). An obvious question is: how is this possible? How is it that for the exact same group of children teacher ratings indicate 85% ready for first grade, while test results, for which a cut-score was determined in terms of teacher judgment, indicate that only 69% of these same children are ready for first grade?

The answer clearly derives from the particular way in which the cut-off score of 88 was determined (as explained in Table 7). To illustrate this point let us simply recount several different ways in which the data from the pilot study might have been analyzed to yield different cut-off scores. One of the simplest ways of setting a cut-off score with data like that from the CSAB pilot study is the borderline-group method (Hambleton, 1980, p.106). Under this approach one simply sets the cut-score at the median performance of the group of individuals who are judged to be not clearly ready or unready -- in other words are rated to be on the borderline. Just such a group is available in the pilot study data, specifically the group of kindergarten children rated undecided with respect to first-grade readiness. (Data on this group of children is shown in Figure 1.) Hence, using this approach, one would set the readiness cut-off score at 82 instead of 88.

Also, one could apply the contrasting group approach to the data shown in Figure 1 in several different ways to derive a variety of different cut-off scores. If one applied the contrasting group approach to the ready and not ready distributions shown in Figure 1, for example, and tried to maximize the number rather than the relative proportions of consistent classifications one would derive a cut-score of 67. Furthermore one could apply the contrasting group method to the pilot study data in other ways (grouping not ready, undecided and ready groups together in different ways) to derive cut-off scores of 67, 75, 81, and 89. In the appendix, we show in detail how different applications of the contrasting groups approach would lead to six different cut-off scores. We should

explain that we are not arguing that any one of these alternative procedures for setting a cut-score in terms of the pilot study data is necessarily better than the approach adopted by the SDE. Rather we illustrate alternative procedures simply to clarify the implications of alternative cut-off scores. Thus in Table 13, we summarize seven different procedures, the cut-scores derived from each and classification implications of each. As shown in this table, there are trade-offs involved in setting alternative cut-scores. As one raises the cut-score from 67 to 69, more children rated not ready by their kindergarten teachers fall below the cut-score, but fewer children rated ready fall above it. In addition to the procedures we have described, there are several other ways in which one could think about the trade-offs involved. The point of the alternative procedures we do describe is simply that there is no one correct method or objective technique for setting cut-scores.

In actuality it depends on subjective judgment -- in the case of the South Carolina readiness test, on the relative weight one places on misclassifying students in either of two ways. How one goes about setting the cut-score on the basis of the pilot study data inevitably embodies assumptions, either explicitly or implicitly, about the utilities associated with alternative kinds of decisions.[1] This idea may seem complex, but it can be illustrated quite simply. A person who is particularly

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1. Somewhat curiously utility theory has not yet seemed to have much influence on discussions of setting cut-scores on minimum competency tests, even though it has long been used in analyses of test-based decision-making in other areas, for example, in personnel selection by Cronbach and Gleser (1965), and in models of fair selection for admissions decisions by Novick and Petersen (1976), and Petersen and Novick (1976).

TABLE 13: Alternative Procedures for Setting Cut-Scores and Their Implications.

Procedure	Cut-Score Derived from Procedure	Total Pilot Study Children Below Cut-Score		Inconsistent Classifications: Children Rated Not Ready At or Above Cut-Score		Inconsistent Classifications: Children Rated Ready Below Cut-Score	
		N	%	N	%	N	%
Contrasting groups (NR vs R) to maximize number of consistent classifications	67	44	2.8	81	75.7	1	0.1
Contrasting groups (NR vs UN+R) to maximize number of consistent classifications	67	44	2.8	81	75.7	1	0.1
Contrasting groups (NR + UN vs R) to maximize number of consistent classifications	75	117	7.5	59	55.1	30	2.3
Contrasting groups (NR vs UN + R) to maximize average proportion of consistent classifications	81	237	15.2	39	36.4	109	8.2
Borderline group (median of UN)	82	256	16.4	38	35.5	126	9.5
Contasting groups (NR vs R) to maximize average proportion of consistent classifications	88	488	31.2	22	20.6	314	23.6
Contrasting groups (NR + UN vs R) to maximize average proportion of consistent classifications	89	547	35.0	18	16.8	364	27.3

Source: Derived from data in Garcia-Quintana (1980) as explained in Appendix.

worried, for example, that a child who is really unready, but misclassified as ready, would not get the special instruction he or she might get if correctly classified as unready, would want to set the cut-score higher than the person who is more concerned about misclassifying a ready child as unready and thereby limiting his educational opportunities or stigmatizing him in a negative way. This sort of thinking is not simply speculative. Some people in South Carolina expressed almost exactly this sentiment. One state official, for example, in discussing the readiness test said "it would probably be better to set a cut-off score high rather than low so as to get people into the program who need help rather than to miss some who do in fact need help" (p.40).

To conclude this discussion of alternative ways of setting cut-scores let us reiterate that we do not mean to imply that the method used by the SDE was incorrect or that an alternative method necessarily would have been better. Rather we have discussed this issue at some length because we found a widespread lack of understanding in South Carolina of how the 88 cut-score was set, and of the implications of setting a readiness cut-off score at that level. We are not advocating any cut-off score other than 88 but instead, as we will now proceed to explain, are questioning the utility of any one statewide readiness cut-score.

Alternative Kinds of Pre-First Grade Educational Experience. Public schools of South Carolina are presently required to make kindergarten available to children, but kindergarten attendance is not compulsory. Thus we learned that children enter first grade with a wide variety of educational experiences. According to a SDE report (Taylor, 1980), 6% of entering first-graders in fall 1979 had not had any kindergarten or formal pre-first-grade

educational experience. Of those who had attended kindergarten, some were in half-day kindergarten, and some in full-day kindergarten.[1] Also some had attended local Head Start centers in lieu of kindergarten.

While we have not seen any detailed data on the proportions or types of students who have different kinds of pre-first-grade experience, data from the fall 1979 administration of the CSAB provide indirect evidence on this issue. These data are shown in Table 14.

It should be emphasized that these data do not represent a full sampling of first-graders in 1979-80. Nevertheless, they do at least suggest the rough patterns of children's pre-first-grade experience, namely that most attended half-day kindergarten, a substantial proportion attended full-day kindergarten, and smaller proportions either had no pre-first-grade educational experience or had attended Head Start.

Let us also comment briefly on the readiness status of children with different kinds of pre-first-grade educational experience as illustrated in Table 14. Some of these results may seem surprising, for example that only 39% of children with Head Start experience were designated ready, as compared with 33% of children with no experience; and that 63% of children with half-day kindergarten were found to be ready, but only 58% of children who had had full-day kindergarten. These results must be viewed with caution for two reasons. First, since data are incomplete for a substantial number of first-graders (8.8% of those with no pre-first-grade experience, and 8.4% of those with Head Start), these data may not be fully representative of the

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1. In many cases, full-day kindergarten are apparently funded under Title I for disadvantaged youngsters. In other cases children may have various combinations of these four types of pre-first-grade experience, for example, Head Start and then half- or full-day kindergarten. We discuss the issue of coordination of such experiences and programs below.

TABLE 14: Numbers and Readiness Status of Children with Different Kinds of Pre-First-Grade Formal Educational Experience.

Pre-First Grade Educational Experience	Ready (Number) (Percent)	Not Ready (Number) (Percent)	Incomplete Data (Number) (Percent)	TOTAL (Number) (Percent)
None[1]	1,105 32.6	1,987 58.6	298 8.8	3,390
Public Kindergarten[1]	22,358 61.9	12,041 33.3	1,748 4.8	36,147
Private or Non-Profit Kindergarten[1]	3,384 79.2	820 18.1	121 2.7	4,525
Head Start[1]	638 39.2	853 52.4	136 8.4	1,627
Other (Nursery Schools, etc.)[1]	499 61.8	275 34.1	33 4.1	807
Unknown[1]	930 48.7	838 43.9	141 7.4	1,909
TOTALS[1]	29,114 60.2	16,815 34.7	2,477 5.1	48,406
Half-Day Kindergarten[2]	18,473 62.7	9,646 32.8	1,326 4.5	29,445
Full-Day Kindergarten[2]	3,541 58.3	2,132 35.2	390 6.4	6,063

Sources:
1. Adapted from "Cognitive Skills Assessment Battery (CSAB): Preliminary Results from fall 1979 Administration," dated 12/14/79.

2. Adapted from SDE "Additional CSAB Analysis by Half-Day Public Kindergarten Program" dated 4/24/80, Table I.

It should be noted that the data from these two sources are not precisely comparable; for example the number of public kindergarten children listed in the first source is not exactly equal to the sum of the half-day and full-day kindergarten children listed in the second source.

statewide situation. Second, two types of pre-first-grade experience -- namely Head Start and full day kindergarten, reported widely to be funded under Title I -- are associated with programs aimed specifically at serving disadvantaged youngsters. So the readiness status differences shown in Table 13 doubtless reflect home background and community differences as well as program differences.[1]

Putting aside for the moment possible sources of the readiness status differences associated with different kinds of pre-first-grade experience, as shown in Table 14, let us simply note here that these data have apparently contributed to a detailed consideration by officials in South Carolina of the relationships between Head Start, public kindergarten and Title I kindergartens.[2] We have not attempted to study the role of Head Start in South Carolina in any detail and so do not venture any specific suggestions regarding what the relationship between these two types of early education programs ought to be. Nevertheless, it is worth noting that insofar as we can judge from the few comments which local school personnel offered to us concerning Head Start, there is ample room for improving the coordination between Head Start and public schooling in South Carolina. In one district, for example, we were told that Head Start in effect competes for children with the kindergarten program. According to two individuals in this district

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1. In this regard, it is worth noting the comment of one first-grade teacher in a rural school district we visited. Asked whether she thought that the local Head Start program had helped children coming into her classes, she said that she felt that it had. She then commented that she is especially aware of the impact of Head Start when she visits some of the children's homes. She said that some of her Head Start students are doing much better than she had expected given their home environment. (p.65)

2. We have been told, for example, that considerable discussion has taken place regarding the relationships between South Carolina's statewide kindergarten objectives and the program objectives of Head Start.

some parents send their children to Head Start instead of public kindergarten because the Head Start program provides door-to-door transportation whereas the public school does not (pp.150,219). In another case, a district official said that he thought the local Head Start program used teachers who are not really certified, suggesting that Head Start probably "picks up teachers who are unable to pass the National Teacher Exam." Yet this same individual also said that he had never visited the local Head Start program, even though a majority of children entering his school have had experience in it (p.211). Whatever their accuracy (or inaccuracy) with respect to the local Head Start program alluded to, such comments clearly indicate that there is ample room for improving the communication and coordination between Head Start and kindergarten programs in these districts.

Nevertheless, since we did not have time to look into the role of Head Start in South Carolina, we will not attempt to make any specific suggestions regarding the possible means or form of such coordination. Instead, let us return to the question of whether the same CSAB scores and particularly the cut-score of 88 may in effect mean different things for children with different kinds of pre-first-grade experience. Unfortunately the spring 1979 pilot study which provided the basis for setting the statewide cut-score included only kindergarten students so we have no direct evidence on this point. Nevertheless, the opinions of teachers and local school officials recounted in chapter 4 clearly suggest that scoring above or below the 88 level does not seem to predict readiness for first-grade instruction equally well for all types of children.

Indirect evidence from the educational research literature suggests that this may be due in part to the different kinds of educational experience which children had prior to taking the fall 1979 readiness test. It is quite widely recognized that disadvantaged children typically show a marked increase in test performance as a result of their first formal educational experience. Urie Bronfenbrenner for example, has observed:

> When the disadvantaged child receives additional cognitive stimulation, as he typically does upon entry into school, his capacity to perform on tests of cognitive function is enhanced. This is particularly true for a youngster who is exposed to an educational program for the first time.
>
> (Bronfenbrenner, 1974, p.18)

The effect of first schooling experience also shows up quite clearly in norms for early childhood tests. The Comprehensive Test of Basic Skills (CTBS) Level A (Form S), for example, provides two sets of norms for the beginning of first grade -- one for students who attended kindergarten and one for students who did not. On the alphabet subtest of the CTBS Level A, a particular raw score can vary by as much as 40 percentile points when interpreted in terms of the two sets of norms (CTB McGraw Hill, 1974). This finding is, of course, not directly comparable to the CSAB results, because the CSAB is not a norm-referenced instrument like the CTBS. Nevertheless, the general point is still relevant; namely, that young children's test performance can be affected markedly as a result of their first formal educational experience, and conversely, that the same test results can represent different things for young children, particularly if they have had varied types of previous educational experience. Indeed this research evidence lends clear credence to the opinion of the teacher who told us that

CSAB results were not a good indicator of how children performed in first grade, because "some of the children who had scored below the 88 level actually proved to do first grade work real well after the first week or two of school" (p.225).

Alternative Kinds of First-Grade Instruction. The third issue to be discussed concerning the plausibility of a single statewide readiness score is the nature of first-grade instruction. The essential issue involved has been well stated by Walter MacGinitie, author of one of the most widely used reading test series. More than ten years ago he wrote:

> Perhaps it is the human tendency to categorize and simplify that leads to formulating the readiness question in the form: Is the child ready? It should be realized that this question cannot be answered unless the question -- Ready for what? -- can also be answered in rich detail.
>
> (MacGinitie, 1969, p.398)

The point of the comment is simply that the CSAB instrument -- and particularly the single readiness cut-score -- are not equally good indicators of readiness for all first graders in South Carolina, because there appears to be considerable variation in the nature and style of first-grade instruction offered in the schools of South Carolina.

Interviews with first-grade teachers clearly indicated this point. Recall, for example, that while one teacher talked of keeping a "scope and sequence" chart on individual children (p.187), another told us that she disliked the individually administered CSAB because "we don't work with children one on one. We work with groups" (p.137).

We know of no documentary evidence on the nature of first-grade

instruction and curriculum statewide, but we have been able to locate some evidence that the diversity apparent in the observations of teachers with whom we talked is not limited to just the six districts we visited. We refer to the national Follow Through (FT) program which has implemented different models of early education in different sites around the country. Three different models have been implemented in South Carolina:

- the Responsive Education Model in Sumter;
- the Mathemagenic Model in McCormick; and
- the Direct Instruction Model in Williamsburg.

Here is a brief description of each of these three models, each implemented in grades kindergarten through four:

> The goals of the Responsive Education Model are for learners to develop problem solving abilities, healthy self-concepts, and culturally pluralistic attitudes and behaviors. Attainment of these goals and program objectives requires that the learning environment support productive child-centered learning and that the curriculum content and skills be relevant to the children's experience outside the classroom. . . .
>
> The child in a responsive learning environment engages in exploring, raising questions, planning, making choices and setting goals. The child discovers individual self-strengths, preferences, and liabilities. Each child develops a repertoire of abilities for building a broad and varied experiential base as well as self-confidence.
>
> x x x x x
>
> The Mathemagenic Activities Program (MAP) derives its name from "mathema -- that which is learned, or pertaining to science" and "Genesis -- to be born." Mathemagenic activities are those which give birth to learning of a scientific type. Therefore, MAP places emphasis on the development of cognitive and affective skills through interaction with the environment.
>
> Teachers in this model are trained to create a classroom learning environment which provides an appropriate mismatch of task options, coordinates the mental and physical activities, and promotes the child's acquisition of self-regulation. Through small group instruction, MAP teachers provide children with a wide range of experiences in sequenced task steps. Academic skills are taught to serve as a basis for developing cognitive conceptual skills.

x x x x x

> The Direct Instructional Model is a behaviorally oriented educational program. It utilizes a tightly controlled instructional methodology and highly structured teaching materials. Its aim is to accelerate the learning of disadvantaged children in reading, language, and arithmetic. Although the instruction is programmed, the emphasis is placed on the children's learning intelligent behavior rather than specific pieces of information by rote memorization. The Direct Instruction approach uses a fast moving series of programmed questions and answers. Teachers present specified questions to elicit a verbal child response. Proper responses are reinforced and wrong answers are corrected according to specified procedures.
>
> (All three descriptions taken from Bock et al., 1977, pp.29,193,65, respectively).

We do not mean to suggest anything about the relative merits of such different models of early education. Rather our point is a simpler one. No single test instrument can appropriately serve as an indicator of children's readiness for instruction into first-grade classes organized along such different models. The FT models may, of course, be more diverse than the typical range of first-grade instruction in South Carolina, but the general point is still relevant. It simply does not make sense to address the question of children's readiness unless, as Walter MacGinitie put it, "the question -- Ready for What? -- can also be answered in rich detail."

Special Difficulties in Assessment with Young Children. A fourth general point to be made with respect to the South Carolina readiness assessment is that any standardized assessment of young children raises difficulties which may not be true of assessment with older ones. Young children typically are not well socialized into the rules and procedures of test-taking. Also, because of their egocentrism young children may interpret assessment tasks in unusual ways in light of their own experience and not as the test developer

or administrator intended. These points were, of course, well known to officials in South Carolina who developed the readiness assessment. Indeed, it was precisely because of such reasons, that the individually administered CSAB was selected for use instead of a more traditional group administered instrument.

Nevertheless, it seems to us that two implications of these issues have not been widely noted in South Carolina. First the accuracy and validity of individually administered test scores depends heavily on the skill and training of the test administrator. The problem of variance in teacher administration is widely recognized among testing experts. Arthur Jensen, for example, has cited an instance in which "teacher administered tests showed about 25 percent greater variance in scores than the test results obtained by [specially trained] psychometrists" (Jensen, 1980, pp.717-18). Because of this problem he suggests that inappropriate administration of standardized tests occurs often enough "to render test scores from teacher administered group standardized tests highly suspect. It is a shame if such scores are recorded anywhere, yet they surely are, in many cases" (Jensen, 1980, p.717). Now the CSAB is not a group administered test of the sort to which Jensen refers.

So, how much of a problem might this be with respect to the individually administered CSAB? As recounted in chapter 4, comments of both teachers and administrators with whom we talked suggest that scoring of the CSAB may have been a problem, but we have little direct evidence on how common it might be in South Carolina statewide. Nevertheless, three pieces of information suggest that variation and errors in administration and scoring of the CSAB may be more common than one might suspect. First we

note that in the SDE reporting of CSAB results approximately 2500 or 5% of the answer sheets were treated as incomplete, even though this categorization was restricted to cases in which responses to one or more test items were not recorded on the answer form and the score obtained from the available data was less than 88.[1] Second, although 3000 pupils were included in the spring 1979 pilot study, useable answer sheets were available for only half of this number. As Garcia-Quintana and Huynh (1980) report "due to misinterpretations of test directions and miscodings of students' responses by teachers, several items were miskeyed, and nearly half of the students had to be deleted from the analysis." Third, we note the comment by one state official who said that because of mistakes in completion of the CSAB answer sheets in fall 1979, approximately half -- or 25,000 -- had to be completed by hand at the SDE prior to scoring (we were told that most of the gaps in answer sheet completion pertained to students demographic information rather than actual test scores).

The second implication which we draw from the special difficulties of early childhood assessment is that few of the teachers and officials with whom we talked seemed to appreciate the magnitude of error implicit in the readiness assessment. As we pointed out in chapter 3 in describing the basis for the cut-score of 88, even though the pilot study in spring 1979 was restricted to students enrolled in kindergartens, discrepancies between teachers' judgment of children's readiness for first grade and whether they scored above or below 88 on the CSAB amounted to more than 20% of the sample. SDE guidelines clearly suggest an awareness of this problem since they explicitly warn:

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1. SDE, "Cognitive Skills Assessment Battery: Preliminary Results from fall 1979 Administration." Since around 60% scored above the cut-score, it seems reasonable to estimate that at least 10-15% of answer sheets overall were incomplete in some respect.

- DON'T rely on this one instrument as the sole indication for readiness. [and]

- DON'T use the 88 cut-score to determine who doesn't get readiness. (see Table 8)

Nevertheless, it seems to us that teachers were simply not much aware of the degree of error and uncertainty implicit in the readiness classifications dervice from CSAB results since one of the criticisms most widely made by teachers was that the CSAB results and the ready/unready designations derived from them did not correspond well with children's actual performance in first grade.

In sum, in this section we have raised four issues bearing on the question of whether the Palmetto State is ready for readiness testing of the sort represented in the first phase of the BSAP. First, the readiness cut-off score of the CSAB was set in subjective or judgmental fashion. Though subjectiveness (or as some have put it, arbitrariness) is implicit in <u>any</u> procedure for setting cut-off scores, we found little indication that the utilities implicit in the procedure by which the CSAB readiness cut-score was set were widely understood or had been considered in light of how the BSAP was planned and may be working in practive. Second, the same scores on the CSAB may represent different things for children in light of the markedly different educational backgrounds with which they enter first grade (and noted that there would seem to be ample room for improving the coordination of different programs serving pre-first-grade children). Third, it does not make much sense to attempt to determine children's "readiness" unless one first provides a detailed answer to the question, readiness for what? Fourth, two of the implications of the special difficulties in standardized assessment of young

children seem to be little recognized with respect to the readiness assessment portion of the BSAP: 1) the apparently widespread variation in administration and scoring of the CSAB, and 2) the degree of error implicit in assessments of young children and particularly in the ready/unready designations derived from the CSAB. These points obviously suggest an answer to the question in the title of this section, namely "Ready for readiness?," but we refrain from giving an explicit answer to it until section 5.5, since several of our other observations bear on the issues raised in this section.

5.3 Assessment and Learning. As recounted in chapter 4, despite weaknesses in the readiness assessment, teachers and administrators with whom we talked perceived a variety of strengths and positive aspects to it. Yet one of the most striking things about their observations is that in large measure the assessment does not seem to be influencing teaching and learning in the way that was assumed in the development of the BSAP. As recounted in chapter 2, the rationale behind the recommendations of the South Carolina Special Committee on Competency (which contributed directly to the passage of the BSAA) was that "detection of student deficiencies [would] insure that our school system gives appropriate instruction to correct any deficiencies that are detected . . ." (Committee, n.d. p.16). In other words, the basic assumption behind the BSAP appears to have been that the identification of skill deficiencies would lead to instructional remediation of those deficiencies. In some measure, the readiness test results may have been used in this way -- for instance, when the results influenced decisions

on which children received Title I services, or when teachers made checklists of CSAB results to help guide their teaching. But in large measure, the results do not appear to have influenced teaching in this way. Recall, for example, that two of the most commonly cited strengths of the readiness assessment were that individual administration of the CSAB allowed teachers time to get to know first graders on an individual basis at the start of the school year and that the kindergarten objectives and the readiness test aided them in thinking about why they were teaching what they were teaching.

Surely these are beneficial outcomes, but the interesting question they raise is why the first phase of the BSAP seems to be influencing teachers in this way. Specifically, why does the program appear to be influencing teachers more in these less direct ways than in the direct manner that was assumed (namely, that specific skill deficiencies identified in the assessment would lead to specific remediation of those deficiencies)?

Three broad explanations occur to us, having to do with 1) problems of implementation; 2) uncertainties of instructional follow-up on assessment results; and 3) differing patterns and styles of first-grade instruction.

Implementation Problems. If there is any one thing that had been learned from experience with new educational programs over the last decade, it is that programs planned in one place typically do not work out quite as intended when implemented in other places. This recognition has spawned a variety of inquiries into how centrally-planned educational programs get

put into practice in local districts, schools and classrooms. These inquiries have come to be known loosely as implementation research (see Farrar, DeSanctis and Cohen, 1980, for a recent review of implementation research in education).

Thus one possible explanation for why the BSAB appears to be affecting teaching in ways different than expected is simply that there have been problems in implementing the new program. This should hardly be surprising since in the 1979-80 school year, the statewide readiness assessment was only in its first year of implementation. Thus it does not seem unusual to find that some teachers had trouble in administering and scoring the readiness instrument, or in finding out about appropriate instructional activities designed to "correct deficiencies" detected, or as teachers more often put it, to help children in skill areas where they were not strong.

To the extent that problems in the BSAP derive from inadequate implementation, the strategy for solving problems would seem fairly clear. Give more attention and devote more resources to the implementation of the program. More in-service training could be provided to teachers, for example, both in administration and scoring of the readiness instrument and especially in providing instruction to help children learn skills in which they are weak. Indeed in this respect, it would seem reasonable not to rely simply upon what might be called "trickle-down training," that is, providing direct training to only some teachers and officials and relying upon them to train other teachers. Instead, problems of implementation might be remedied, at least in part, by providing direct training to all teachers

involved in the assessment program. As we noted in chapter 4, this was one of the most common concerns of local officials with whom we talked, namely, that more resources and training be provided. Also, follow-up visits might periodically be made to local districts and schools to check on how the assessment is being implemented.

Such activities might be quite useful, but it seems to us that issues of implementation do not fully explain why the readiness assessment seems to be working out in the way that it is.

Uncertainties of Instructional Follow-up on Assessment Results. Another reason why the readiness assessment does not seem more generally to be leading to specific instruction "to correct deficiencies detected" may be simply the uncertainties of how to do this effectively. As we recounted in chapter 4, there were at least four different strategies for providing instructional follow-up to children on the basis of the readiness test results.

First, in at least one district some children were simply not promoted into the first grade, but instead were placed in kindergarten classes. As explained, this was apparently done only for children who had not attended kindergarten, and only with parents' permission. Nevertheless, one local official suggested to us that this strategy for responding to assessment results may become more common in the future. Specifically, we asked this official what he thought of the contrast between the fall 1979 readiness test results and previous rates of nonpromotion from first into second grade. (As reported in chapter 3, 35% of children statewide were indicated to be not ready for first grade on the basis of the fall 1979 CSAB, but SDE data indicated that in 1977-78, only 8.6% of first graders statewide had not

been promoted into the second grade.[1] He suggested that in the past social promotion had probably been widely practiced in South Carolina, but added that in the future "we will probably see much higher levels of holding kids back through the grade levels" (p.214).

We know of no evidence to suggest that nonpromotion has been a widely practiced response to BSAP results. Indeed, quite to the contrary, our conversations with teachers and local officials indicated that nonpromotion was not a widely practiced response to readiness test results. Nevertheless, this strategy for dealing with low scoring students should, we think, be a source of concern for two reasons. First, on its surface nonpromotional may be an attractive way of dealing with students who score poorly. Absent any other clear means of providing instruction to follow-up on assessment results, holding students over to repeat a grade is an obvious possibility. Moreover, retaining low scoring children in, say, grade 2 is a sure-fire way of raising test scores in grade 3. Nevertheless, despite its surface appeal, nonpromotion does not seem to be an educationally effective means of improving learning. As a recent review of research evidence on the effects of grade retention concluded, "educators who retain pupils in a grade do so without valid research evidence to indicate that such treatment will provide greater benefits to students with academic or adjustment difficulties than will promotion to the next grade." (Jackson, 1975, p.627, emphasis in original). There are, of course, many educational practices

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1. Hill, 1979, p.120. One other aspect of these data is worth noting. Specifically rates of first-grade non-promotion among the 92 districts of South Carolina in 1977-78 (from 0 to 18.8%) were quite different than the levels of first-grade unreadiness revealed in fall 1979 (from 77% to 12% of children unready. See Table 11).

which cannot be bolstered with solid research evidence, but absent research support for non-promotion as a means of providing instructional remediation, what alternatives are available?

A second approach suggested in our conversations with people in South Carolina is between-class grouping of children. This can be done in either of two ways. Low and high-scoring pupils may be grouped in altogether separate classes, or low-scoring children may be withdrawn from -- or "pulled-out" of -- their regular classes to receive special remedial instruction in skills in which they are weak. Again, we have no clear evidence on the prevalence with which such practices may be employed as a means of meeting the mandate of the BSAP for local districts to "provide instruction to bring student performance up to statewide minimum standards" -- or at the first-grade level "to provide appropriate developmental activities." We do, however, have indication that when such practices occur they may not be prompted simply by the BSAP but instead by other considerations. In the one instance we found in which children were reportedly segregated into "ready" and "unready" classes, the practice was explained with the comment that "this seems to be what is required by Title I" (p. 226, see also section 4.2). Also, as recounted in section 4.3, several teachers told us that CSAB results were used as part of the process of selecting children to receive special Title I services, some likely delivered through pull-out programs, since such programs have been found to be one of the most common means of delivering Title I services.

What do we know about such practices of between-classroom grouping

as a means of delivering remedial instruction? The literature on grouping of students into different classes on the basis of ability test results is voluminous -- much too broad for us to describe here in any detail. Nevertheless, it seems safe to say that the research literature on this practice has not indicated any general positive benefit as accruing from ability grouping. As Goldberg, Passow and Justman (1966) concluded, "Ability grouping is inherently neither good nor bad. It depends upon the way it is used" (p. 160).[1] Also, it should be noted that at least some observers have recently suggested that grouping children on the basis of competency test results may lead to a new form of racially segregated schooling (Mills and Bryan, 1976).[2]

Much of the literature on ability grouping, based as it is on a range of age and grade levels, is not necessarily relevant to a beginning first-grade instruction. Nevertheless, one recent study of grouping and instruction on first-grade achievement also suggests caution with regard to between-class grouping. Specifically Leinhart (1978) investigated the impact of assigning poor-prognosis first-grade students to separate transition rooms and contrasted this practice with giving similar children regular instruction in an integrated setting. She concluded that "low performance students learn beginning reading better in regular instructional

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1. See also Findley and Bryan, 1971, for a good review of much of the literature on ability grouping.

2. In this respect it is worth noting that this was not the case in the one clear instance of between-class grouping on the basis of CSAB results which we encountered. In this case, education was already racially segregated. The school involved was 100% black, because white students in the community attended a local private academy.

settings"(p. iii). Leinhart specifically suggests that "the treatment alternative of placing [poor prognosis] children in small, homogeneous settings and focusing on 'learning to learn' skills, rather than taking a direct approach to reading, showed no advantages in terms of growth, and showed some disadvantages" (p. 12).

What of pull-out programs? The research literature on the effectiveness of pull-out programs as a means of delivering remedial instruction is far less voluminous than that on ability grouping. Nevertheless, one recent study of "pull-out" practices in Title I reached the following conclusions:

> 1. Pulling Title I eligible pupils out of regular classrooms for compensatory instruction is virtually universal.
>
> 2. The "pull-out" procedure per se has no clear academic or social benefits and may, in fact, be detrimental to pupils' progress and adjustment to school.
>
> 3. The "pull-out" procedure is used by schools more to satisfy Title I regulations than because it is judged by teachers to be a sensible and beneficial plan.
>
> (Glass and Smith, 1977, p. 7)

The third method described to us of providing special instruction to pupils who scored low on the fall 1979 readiness test was grouping children within classrooms to receive instruction in areas in which they were weak -- for example, as in the case cited in section 4.3, grouping children together to learn the names of colors. We know of no specific research on the topic of within-class grouping of pupils for the purpose of providing remedial, compensatory or special instruction. The lack of research on this topic may derive, we suspect, from

the fact that since such practices take place strictly within classrooms they are harder for outsiders to observe and document. Nevertheless, it is worth noting that this strategy for delivering special instruction seems to have received at least a backhanded sort of endorsement from researchers who have found disappointing results from non-promotion, between-class grouping and pull-out programs. Findley and Bryan (1971), for example, suggested flexible grouping as an alternative to general ability grouping: "The grouping is informal, ad hoc, and of short duration. In a situation of this nature, the students and teachers are paired with the task to be accomplished" (pp. 85-86). More recently, after concluding that pull-out procedures have "no clear academic or social values," Glass and Smith (1977) recommended that "new consideration should be given to the needs of all pupils in poor schools and the integrity of total school programs" (p. 47).

This advice seems to be reflected at least implicitly in a fourth strategy which teachers described to us for providing instruction in areas in which the CSAB assessment showed children to be weak. Some teachers told us, for example, that because of low performance of children in their classes generally that they had tended to stress skill areas such as auditory and visual memory or oral language.

There is not much literature of which we know on the effects of teachers emphasizing skill areas such as these. But if there is one clear positive finding from educational research literature in recent years, it is that children tend to learn more in areas in which they are taught. In the jargon of recent educational research it is

sometimes said that "time-on-task" seems to explain what is learned in school. Walker and Schaffarzick (1974), for example, in their review of research comparing different curricula, concluded that

> innovative curricula almost always led to higher achievement scores on tests whose content more closely resembled that of the innovative curriculum, while traditional curricula occasionally led to higher scores on tests whose content more closely resembled that of the traditional curriculum. (p. 94)

So beyond the seemingly obvious fact that children tend to learn more of what they are taught than what they are not taught, there seems to be little certainty regarding which strategies are effective in providing instruction to students who may be weak in particular areas. In other words, the uncertainties of providing instructional follow-up or assessment results may explain why the positive influences of the readiness assessment tended to be quite vague and general (getting to know students, and helping teachers to think about why they were teaching what they were teaching) rather than specific in terms of leading to clear changes in first-grade teaching practices (many teachers could point to no specific differences which the readiness assessment had made in classroom instruction in the first grade).

Local Programs and Teaching Styles. One explanation for why the readiness assessment does not seem to have led to widespread changes in first-grade instruction is that, as just discussed, it seems quite unclear how best to change instruction so as to effectively follow up on assessment results. Should unready children be held back in kindergarten; should they be grouped into special classes; or be grouped for purposes of

special instruction within classes; or should teachers simply stress instruction in areas where their children as a group tended to score poorly on the CSAB? In short, it often may have been unclear to teachers and local school officials what should be done differently in response to the mandate of the BSAP. How, for example, should a teacher interpret the SDE guideline on using readiness test results, "Do give appropriate readiness [instruction] to all students in areas where they show deficiencies regardless of scores" (see Table 8)? What is meant by "appropriate" instruction? If one is supposed to respond to "deficiencies," regardless of readiness test scores, why should the test be scored at all, much less twice -- once by teachers and once by the SDE? No one expressed these exact questions to us, we should make clear, but they seem to capture the uncertainty implicit in much of what we were told about how readiness assessment results were or should be used.

Uncertainty does not, however, seem to us to be the only explanation for the apparently small or at least indirect influence of the readiness assessment. An alternative one is simply that the BSAP was introduced into settings which were neither uniform nor devoid of pre-existing programs of first-grade instruction or individual styles of teaching.

From the perspective of Columbia, the BSAP program is, of course, a new initiative and a program with an independent existence. From the local perspective, however, it appeared to be only one of many demands placed upon local school districts and teachers. From this perspective, local school officials and teachers might be viewed, to borrow a term from a recent study of the implementation of another state's new educational reform program, as street-level bureaucrats:

> These "street-level bureaucrats" . . . interact directly with citizens in the course of their jobs and have substantial discretion in the execution of their work. For such public workers, personal and organizational resources are chronically and severely limited in relation to the tasks that they are asked to perform. The demand for their services will always be as great as their ability to supply these services. To accomplish their required tasks, street-level bureaucrats must find ways to accommodate the demands placed upon them and confront the reality of resource limitations. They typically do this by routinizing procedures, modifying goals, rationing services, assessing priorities, and limiting or controlling clientele. In other words, they develop practices that permit them in some ways to process the work they are required to do. (Weatherley and Lipsky, 1977, p.172)

To suggest in this way that teachers and school officials are street-level bureaucrats is not meant to disparage their role. Quite the contrary. They are the ones in the front-lines, so to speak, to organize schools and teach children. In such roles, the BSAP may simply not seem to be terribly prominent. It is only one among many similar influences. Title I requirements, special education programs, a new school finance program, school desegregation requirements, etc. all make similar demands on the time and energies of teachers and local school officials. From this perspective, it seems easier to understand why the readiness assessment often seems not to have led to any clear-cut changes in first-grade instruction. As recounted in section 4.2, in practice the BSAP seemed to be intertwined in numerous and complex ways with a variety of other state, local, and federal programs. Also, as recounted in section 4.3, several teachers indicated that the readiness assessment had not much influenced patterns of first-grade instruction which they had developed over years of experience. The patterns described to us were quite different, of course, but the point in common in the view of several teachers was that the regular routine of

instruction which they had developed over years of teaching had not been changed greatly by the statewide readiness assessment implemented in the fall of 1979.

So where does this leave us? In this section, we have explored three alternative explanations of why the readiness assessment seems to have had relatively little influence on first grade teaching practices. First, we suggested that it may have been due to problems of implementation common to most new educational programs. Second, we discussed the possibility that it may have derived from uncertainties over how to fulfill the mandate of the BSAP to use the results of the readiness test "to provide appropriate developmental activities in the first grade." Finally, we suggested that the program may have had little direct influence because of the natural inertia of local programs and of instructional patterns of individual teachers, influenced not just by this particular program, but by a range of other local, state, and federal programs as well. In the closing section of this report we offer some specific suggestions as to what might be done to enhance the influence and educational role of the BSAP. However, before turning to our specific suggestions let us describe one of our other general concerns, namely the ties between home and school.

5.4 Home and School. Children learn not only from schools, but also from their families and communities. The point may seem obvious, but increasing appreciation of this fact has contributed over the last 15 years to vastly increased emphasis on involvement of parents in educational programs, particularly programs for young children. The importance of involving parents seems to have been stressed by just about every major writer on early childhood education in the last decade (for example, Hess, 1973;

Bronfenbrenner, 1974; Hunt, 1975). Lois-Ellin Data (1975) suggests that there are at least six different factors which have prompted the increasing concern for parent involvement: 1) preliminary evidence that parents determine more of their children's educational achievement than does the school; 2) increased concern for the first five years of life when parents traditionally have responsibility for a child's development; 3) failure of school-based systems to deliver equality of educational outcomes to disadvantaged children; 4) increased demand for citizen participation in decision-making in all sections of society; 5) increased appreciation of what schools can learn from parents, and an emphasis on the positive aspects of cultural diversity; and 6) increasing awareness of the need for parent education by the general public.

For whatever reasons, concern for parent involvement in public education programs seems to have been receiving increasing attention in South Carolina, as well as nationwide. Membership of elected parents was explicitly required in school advisory councils in South Carolina's EFA of 1977 (Section 6). Also, as noted in chapter 2, the BSAA explicitly requires that parents be notified in writing of any student deficiencies in meeting minimum statewide standards. Indeed in this light South Carolina has recently been cited in a recent national report as one of three states "leading the way" in efforts to promote formal citizen participation in education (Zerchykov, et al., 1980, p.x). In light of this trend, we note that involvement of parents in the six districts we visited seemed to vary markedly. Although we had asked to speak with parents in each of the six districts, we were able to do so in only three. Two of the three districts where we were unable to speak with parents were the economically poorest districts we visited.

This pattern may represent a number of things -- that working parents were unable to come to school to talk about the BSAP, or that our interest in talking with parents was not fully understood by school officials. Nevertheless, it also seems to reflect another pattern apparent in the districts we visited, namely, that parent involvement and home-school communication seemed strongest in the wealthier districts, and weakest in the economically poorer communities. For example, in one of the wealthiest school districts in the whole state of South Carolina, first-grade teachers told us that they regularly have parent-teacher conferences within the first week or two of school, and that in 1979 they sent letters to parents of the relatively few children who scored below 88, pointing out the things in which children were not strong and enclosing materials with suggestions for what parents could do to help their children. Reportedly "in every case except possibly one, they had an immediate response from the parent" (p.158).

In one of the poorest districts of the state, however, we were told that not a single parent responded to the letter sent home to parents of unready children, and in the words of one official in this district, "poor deprived parents couldn't give a damn" (p.213). This same official also commented that in his district, it's "almost impossible to get parents to participate" and suggested that even when disadvantaged children have been helped during the school year, they are likely to fall back during the summer because, as he put it, "most poor kids just run free and happy-go-lucky during the summer" (p.217).

The point of this contrast is simply that home-school cooperation and communication appeared weakest in one of the districts which probably stood

to benefit the most from increased parent involvement in the schools and in efforts to increase children's learning. We know of no documentary evidence concerning parent involvement in South Carolina's schools statewide, but the issue seems worth considering with respect to the BSAP. In some districts, the program seems to have served to promote communication and cooperation with parents; for example, in several instances the readiness test results seem to have served as an impetus for distribution of materials on how parents could help children learn.[1] But in other instances, the BSAP appears to have had little, if any, relationship to the goal of involving parents (for example, in none of the six local school districts visited was parent involvement in school councils, as mandated under the EFA of 1977, mentioned even once), or even to have helped alienate parents from the schools (as is the case, recounted in chapter 4, of a parent spending $20 he could not afford on a complete physical for his child, only to find out that there was nothing wrong with him).

In short, we have no basis for drawing overall conclusions regarding the influence of the BSAP and the readiness assessment on home-school ties and parent involvement in South Carolina statewide. What we would conclude, however, is that in most districts we visited the BSAP appears to have had little influence on pre-existing patterns of home-school communication, and in one it may have contributed marginally to the alienation between parents

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1. Though the point was not always clear in our interviews, the materials referred to seem usually to have been drawn from "PALS: Parent Activities for Learning Skills." This document is a loose leaf collection describing activities which can be conducted by parents of children in grades K-3. Copies reportedly have been distributed to schools throughout the state with the suggestion that pages describing relevant activities can be reproduced and sent home to parents.

and schools which already seemed to exist in that district.

5.5 Suggestions.

> It's a delicate thing, coming from the state down. It has to move through various levels, and it's easy for someone, somewhere along the line to say: Use this thing to assign kids. The program has a lot of potential to help kids, but it also has a lot of potential to be misused.
>
> - First grade teacher, commenting on the BSAP (p.68)

For two reasons, we begin this final section of our report with this quotation from a first-grade teacher with whom we talked. First, her words aptly sum up our own view that the BSAP is in several respects quite progressive as compared to other state competency testing programs, and as such has clear potential for contributing to educational improvement in the Palmetto State. But as this teacher also suggested, the program seems too to have potential for misuse and unintended consequences. Second, we quote this first-grade teacher as a means of illustrating that the things we suggest here are not novel ideas invented by us, but instead are reflections, either direct or indirect, of comments and suggestions by teachers and local school officials with whom we talked in South Carolina.

We describe these concluding comments as suggestions rather than as recommendations for the simple reason that we appreciate the limited nature of our inquiry and the complexity of the educational scene in South Carolina. Indeed, it is the latter point which is the single largest motivation behind the specific suggestions we offer. The educational conditions of the 92 districts in South Carolina vary markedly. Different teachers have different teaching styles and access to very different resources. And within districts and schools, individual children obviously bring to first-grade classrooms markedly different educational backgrounds. If our suggestions reflect any

one idea, it is that such diversity, some good and some ill, ought not to be ignored in implementing any statewide program of assessment and educational improvement.

1) Curriculum. Our first suggestion is simply that more attention be devoted to patterns of curriculum continuity, both across grade levels, and across districts of the state.

The educational issues embodied in the BSAP have been formulated largely in terms of either educational objectives or content of assessment instruments. Even between these two realms, however, significant discontinuities are apparent. Table 6, for example, shows that three of 18 kindergarten objectives have been judged not to have any corresponding items on the CSAB. Another indication of discontinuity between kindergarten objectives and the readiness instrument is the fact that nearly 70% of the CSAB item matches shown in Table 6 are associated with only five or 28% of the kindergarten objectives. The SDE has advised that:

> The fact that the CSAB does not measure [an] objective in no way diminishes its importance. Some objectives may be measured only by teacher observation.

We quite agree with the spirit of this statement, namely that some objectives of early education cannot be measured with test items on specific assessment tasks. But we note that in practice the readiness test itself seems to be more prominent in the eyes of teachers than the kindergarten objectives. For example, while we encountered two first-grade teachers who knew of the CSAB instrument but had never heard of the kindergarten objectives, we encountered no one whose knowledge was the reverse. This suggests clearly that to the extent that teachers are paying attention to the readiness test results as a guide to their teaching, they are attending

to some kindergarten objectives and not to others. One possible solution to such apparent discontinuity of attention to statewide objectives would be to develop a home-grown readiness instrument which represented a better balance among objectives. Indeed, this was precisely what one teacher, who was disappointed in the state's selection of the CSAB, suggested should have been done (p.157). Clearly, given more time, this would have been a possibility. However, we are inclined toward the view of the SDE -- namely, that some objectives, some aspects of young children's learning may be assessed only through observation and informed judgment. In this light, the remedy to discontinuities between objectives and assessment is not simply to find a better instrument, but instead to find a better means of integrating teacher's judgment into the assessment process. (This is a suggestion to which we will return below.)

Discontinuity between statewide objectives and statewide assessment instruments is nevertheless, we suspect, relatively small in comparison to discontinuities among first-grade instructional programs in different schools and classrooms across the state. We realize that statewide objectives for kindergarten, and higher grade levels as well, have been reviewed and agreed upon by statewide committees of teachers, but as our interviews with teachers suggested, what gets taught in classrooms seems to be dependent more on individual teaching styles and habits, and local curriculum emphases, than on statewide objectives or assessment results. Given the diverse conditions of school districts in South Carolina, some of this diversity may be all to the good. But what seems not to have been recognized is the extent to which differing curriculum emphases may affect

student performance.[1]

We suggest additional attention could usefully be directed to the continuity of both curriculum and statewide objectives across the grade levels. As mentioned in section 3.1, measurement strategies for statewide objectives for grade 1 and above seem to embody some fairly specific assumptions about curriculum sequence, but it is not at all clear how they may relate to curriculum in different districts across the state. Note also the apparent difference between the 18 kindergarten objectives (see Table 5) and the 16 objectives for grade 1 and above. Given that the two sets of objectives are quite different, it is possible that by focusing instruction -- or appropriate developmental activities -- on areas in which children showed weaknesses on the readiness assessment (such as visual and auditory memory), rather than on end-of-first-grade objectives, first-grade teachers may not be helping children meet first-grade objectives as much as they might. Such a possibility is clearly suggested by Leinhart's (1978) research described above. Nevertheless, our general point is simply that discontinuities between child development, statewide objectives, assessment instruments, district curricula and individual teaching patterns do not seem to have been closely considered and may have unforeseen consequences for assessment results. As pointed out below, the 1979 readiness results seem to have contributed to increased communication in South Carolina on such matters, but in our view far more attention could profitably be given to curriculum matters (for example, what is and should be taught, with

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1. In their paper "Overlap: What's Tested, What's Taught," Leinhart and Seewald (1980), for example, show quite clearly that what gets taught in the early elementary grades, as measured via either teacher judgment or analysis of curriculum materials used, explains significant variance in post-test scores above and beyond pre-test scores.

what materials and in what manner) instead of focusing attention mainly on educational objectives and assessment instruments.[1] In suggesting additional attention to such curriculum matters, we are not, it should be noted, necessarily arguing for statewide uniformity in what is taught with what materials and in what manner. In many cases there may be good reason for diversity in each of these areas. Rather we are suggesting simply that absent detailed attention on these points, assessment results may be affected in unforeseen and unfortunate ways by these curriculum issues.

2) Cut-Off Scores. We suggest that the practice of setting a single statewide cut-off score on basic skills assessment instruments be dropped, at least for the readiness assessment, and perhaps also for early elementary grades. As we intimated in section 5.2 above, the educational scene in South Carolina seems to us not to be "ready" for any uniform statewide readiness assessment. We cited four reasons for this judgment:

- Different cut-scores might be derived, given different utilities associated with different classification outcomes (and different utilities might be appropriate in different districts).

- Diversity of children's pre-first-grade educational experience likely means that the same scores on any readiness instrument mean different things for different children.

- Determination of "readiness" does not make much sense unless one first answers the question of "Readiness for What?" in a detailed manner.

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1. In this respect, it is interesting to speculate on why only 23 out of South Carolina's 92 districts responded in 1978 to the SDE's request for them to submit any objectives in reading, writing, and math that they had developed for their own purposes. Doubtless there were several reasons, but surely it was not that the other districts do not have goals in terms of what they are hoping to teach children. It may be simply that their "objectives" are defined indirectly in terms of curriculum materials and teaching guidelines, rather than directly in the form of "behavioral objectives."

- Special problems in assessment of young children clearly limit the utility of standardized assessment of their learning.

Our suggestion to abandon a single statewide cut-off score may seem like a fairly radical one yet at least with respect to the readiness assessment, it seems already to have been implied in advice issued by the SDE: for example, that readiness test results should be used only as a guide (see Table 8) and that teacher observation is the only available means for assessing some statewide objectives. These issues may not be quite so clear in early elementary grades, say one through three, but it seems to us that they apply, in kind if not in equal degree, beyond readiness assessment. Thus we suggest that single statewide cut-off scores on early grades assessments may be of limited utility, and hence perhaps ought not to be instituted.

3) Instructional Follow-up. We suggest that more attention and resources be devoted to promoting instructional aspects of the assessment program. Two ways in which this might be done are to provide more in-service training on use of assessment results, and to provide more instructional materials for teachers to use in following up on assessment results. We realize that efforts along these lines are already being undertaken as described above, but suggest that far more needs to be done to promote instructional utility of the assessment. For example, given that it was possible to reorganize the first week of first-grade instruction in fall 1979 to allow for individualized assessment of entering first graders -- might it not be possible to find ways to allow teachers more time and flexibility in actually using assessment results to improve learning for individual children.

Also, given that initial BSAP results have clearly indicated widely varied educational needs among the 92 districts of the state (some districts

with more than 70% of first graders "unready," but others with only 15-20%), it would seem useful to focus particular attention on promoting instructional follow-up and improvement in the districts which are most needy. We are aware that some initial efforts in this direction have been undertaken, but far more active guidance, or even intervention, on the part of the SDE clearly would seem warranted.[1]

4) Parent Involvement. We suggest also that special attention be given to means of promoting parent involvement in connection with the BSAP. Again we are aware of the fact that the SDE has already made some efforts along these lines,[2] but given the importance of parental involvement in early education and the obvious lack of such involvement in two of the poorer districts we visited, far more active efforts along these lines clearly would seem useful. Here, for example, are just a few ideas:

- Instead of simply sending notices home to parents of "unready" children, provide more detailed information on children's weaknesses and strengths to all parents in language and forms that are meaningful to parents,
- Through school advisory councils established under the EFA of 1977, and elected parent representatives on these councils, provide resources for organization of parent support groups, and

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1. Specifically, when we suggested the idea of special follow-up in low-scoring districts to state officials, we were told that the SDE had already organized a meeting for all superintendents of districts with more than 50% of children scoring below 88 on the fall 1979 test, to tell them of things they could do to help children become ready for first-grade (p.245). Our point is simply that far more than such a laissez-faire approach is needed; for example, provision of special training for teachers in these districts; providing additional resources for classroom aides; assigning SDE personnel to work in helping such districts improve curriculum materials, promote parent involvement, coordinate kindergarten programs with other local pre-school programs, etc.

2. We were told, for example, that superintendents of all 92 districts have been given a copy of an SDE publication on parent involvement entitled "The Puzzle of Parenting" (p.245).

- Drop the requirement that parents of "unready" children be advised to get complete physicals for their children, and consider alternative approaches of organizing screening programs for young children.[1]

5) Communication. Perhaps the single most intriguing impression which we take away from our case study is that the positive values people most commonly identified with the fall 1979 readiness assessment involved increased communication resulting from the program -- communication at several levels. At the state levels, the assessment led to dialogue

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1. This is an aspect of the BSAP, as required under the BSAA, which seems to us well-motivated, but ill-conceived. The motivation clearly was to provide a means of ensuring early on in children's school careers that learning is not impeded by physical or medical problems. However, despite this worthy motivation this facet of the BSAP may not be working out as intended for two reasons. First, as recounted in chapter 4, the requirement that parents get complete physicals for "unready" children may be working an unnecessary financial hardship on poor parents (and as suggested in the incident recounted, alienating some parents from school officials). Second, complete physicals may simply not be a very efficient means of screening children for physical or medical problems. While we know of no evidence on this point with respect to South Carolina, it is worth noting the conclusion of a well-known paper from the public health literature. After conducting a detailed study of the efficiency of a program of providing physical exams for children in grades 1 and 2, Yankauer and Lawrence wrote (1956) "It is concluded that periodic school medical examinations are of little value from a case-finding standpoint" (p.1562). This study may be of only indirect relevance to the South Carolina setting, because it dealt with a population of children, who all had previously received physical examinations, while it is not clear that all "unready" children in South Carolina previously would have received such physical exams. Nevertheless, the general approach of Yankauer and Lawrence is directly relevant -- namely a cost-effectiveness study of the efficacy of advising parent of "unready" children to obtain complete physicals. While such a policy may be relatively free of cost from the state government perspective, acting on such advice may be quite costly from the parent perspective (if the $20 figure cited to us is accurate, the cost of adherence to such advice by parents would be on the order of $20 x 17,500 "unready" children = $350,000 annually). Given such an expenditure, it would seem worthwhile to investigate alternative ways of serving the goal of identifying and remedying physical and medical problems which may hinder children's learning.

between SDE and Head Start officials regarding coordination of Head Start and public kindergarten and grade 1 programs. Also, it contributed to establishment of a special committee, mandated by the General Assembly, and organized under the auspices of the Governor's office, to make recommendations concerning early childhood education policy in South Carolina generally (Governor's Advisory Committee, 1980). Additionally the program appears to have helped open up new avenues of communication between departments of the SDE and local school districts, and in the words of some, even among SDE departments. At the classroom level, it helped teachers get to know children at the start of the school year, and helped teachers think about and discuss their teaching. In short the program seems often to have spurred communication among a variety of parties. Our previous suggestions might be viewed generally as possible avenues for enlarging this circle of conversation; to include parents; to more fully engage teachers in it; and to make curriculum -- what is taught and how it is taught -- a topic of conversation; and avoid foreclosing conversation with overly simple labels like "ready" and "unready."

In this light, we further suggest that certain aspects of the basic skills assessment in later grades might be reconsidered in light of early experience with the entering grade 1 assessment; for example:

- Might individualized assessment be useful beyond entry into first grade?
- Might fall assessment prove more useful than spring assessment?
- Are the potential risks involved in setting statewide cut-off scores in the early elementary grades possibly greater than potential benefits?
- Can implementation of later grades assessments be planned, carried out, and followed up in ways that will

help ensure "a lot of potential to be misused" -- in the words of the teacher quoted at the start of this section -- can be avoided?

The metaphor we have adopted as a means of summarizing our suggestions -- namely the BSAP as a spur to communication and engagement of a variety of parties in conversation over improvement of education for children of South Carolina may seem a weak one. For two simple reasons we have avoided the stricter metaphor, popular in some educational circles recently, of assessment as a means for "diagnosis and remediation of deficiencies." Diagnosis cannot be carried out from a distance, from Columbia to the countryside; and there is no R_x for educational remediation.

5.6 Postscript. In closing, how can we answer the question in the title of this report: "Basic Skills Assessment in South Carolina: How Progressive an Approach to Minimum Competency Testing?" We come away from our study of the South Carolina assessment program with the impression that it has clearly been designed in ways more progressive -- that is, promoting progress toward better educational conditions -- than other state minimum competency testing programs. But it is, of course, too early to hazard a definitive answer to this question. In this regard, in closing we should reiterate that this report presents only an early snapshot of the BSAP and the readiness assessment part of it which was implemented statewide in fall 1979. When we visited Columbia in December 1980 to present a preliminary version of this case study to officials of the SDE and to the Basic Skills Advisory Commission, we learned that since the time of our visit to South Carolina in May 1980, numerous changes have already been undertaken with respect to the BSAP. Revisions have been made in the readiness assessment (for example, content and scoring procedures of the readiness instrument have been revised see Mappus, et at., 1980). Others have been recommended regarding the BSAP overall (for example, one that is similar to a suggestion

of our own is that "teachers should be afforded more opportunity to participate in State and local inservice related to their specific needs, "Mappus, et al., 1980,p.41). Perhaps most significant, however, is the reorganization of the Office of General Education in the SDE to create a Basic Skills Section to more effectively carry out the mandate of the BSAA for the SDE to monitor and evaluate the degree to which the Basic Skills legislation is being implemented in South Carolina's school districts, and to "render appropriate technical assistance" to help districts fulfull the intent of the legislation (Taylor, December 1980). The new section has responsibility for the State Child Development Program, Parent Education Program, Title I Curriculum Services, and other activities related to the Basic Skills program. To carry out the mandate of the BSAA, the new section will require each school district to submit annually a General Assurance Form which will provide evidence of district intent and planning with respect to the requirements of the BSAA. Also, staff of the Basic Skills section will visit school districts to interview principals and teachers, and to observe classroom instruction so as to monitor district compliance with the BSAA. In addition to simply monitoring compliance, the SDE personnel will also prepare recommendations for program improvement. On the basis of the visitations, and General Assurance Forms, each district will be classified into one of the following categories:

1. In compliance with the BSAP legislation,
2. Making significant progress toward compliance with the BSAP legislation, or
3. Significantly behind schedule in compliance with the BSAP legislation.

District superintendents will be notified of such classifications and school principals will be notified of similar classifications at the school level.

Exactly how such classifications will work out in practice, however, is unclear, because in districts with more than three elementary schools not all schools will be visited.

In short, in light of significant developments in the BSAP since the 1979-80 school year when we visited South Carloina it would obviously be presumptuous of us to attempt any conclusive answer to the question in the title of this report. The BSAP was, after all, only in its first year of statewide implementation in 1979-80.

Nevertheless, there is surely much to be learned from the South Carolina program. Officials and educators in South Carolina were most cordial in openly welcoming our inquiry toward this end. If this report and the modest suggestions offered in it, have any utility in improving the South Carolina program it will serve we hope as partial repayment for the generousity of numerous Soutn Carolinians in providing us with this opportunity. And, however the BSAP develops as it moves toward full implementation in 1989, the one thing we can say with certainty is that the South Carolina effort to use basic skills assessment as a means of improving learning for all students of that state will be well worth watching.

APPENDIX:

Alternative Approaches to Setting
Cut-off Scores Using
the Spring 1979 Pilot Study Data.

In Table 12, we briefly described seven different approaches to deriving a "readiness" cut-off score using the data derived from the spring 1979 pilot study of the CSAB with kindergarten children. As recounted in section 3.5 these data consisted of CSAB scores for three groups of children, those independently rated by kindergarten teachers as "ready," "not ready" or "undecided" with respect to readiness for first grade. These data are given in Garcia-Quintana & Huynh (1980) and depicted in Figure 1. Since we described only two of the seven approaches in detail in the text of this report, we describe the others in detail here in this appendix. Specifically we describe six ways in which a readiness score might be derived from using contrasting groups approaches (the borderline group method was described in chapter 5).

Since there are three groups of children on which test scores were available there are three ways in which they may be organized into two contrasting groups. Specifically, one could compare:

- Not Ready group versus Ready group (NR vs R)
- Not Ready and Undecided groups versus Ready group (NR & UN vs R)
- Not Ready versus Undecided and Not Ready groups (NR vs UN & R)

There are innumerable ways in which the scores of these three contrasting groups of children might be compared so as to derive a cut-off score. However two of the most obvious ways are:

1. To set the cut-off score so that the number of consistent classifications is maximized (for example, so that in the first contrast, the number of ready children scoring at or above the cut-off score plus the number of unready children scoring below the cut-off score is as large as possible)

2. To set the cut-off score so that the average proportion of consistent classifications for both of the contrasting groups is as large as possible (for example, so that in the first contrast the average of the percentage of R children at or above the cut-off score plus the percentage of NR children below the cut-off score is as large as possible).

Thus, we have six different ways of applying the contrasting groups approach to the pilot study data; summarized as follows:

Contrasting Groups		Maximization Criterion for Setting Cut-off Score C
1.	NR vs R	[#NR<C] + [#R≥C]
2.*	NR vs R	[%NR<C] + [%R≥C]
3.	NR & UN vs R	[#(NR+UN)<C] + [#R≥C]
4.	NR & UN vs R	[%(NR+UN)<C] + [%R≥C]
5.	NR vs UN & R	[#NR<C] + [#(UN+R)≥C]
6.	NR vs UN & R	[%NR<C] + [%(UN+R)≥C]

As shown in the appendix table, the cut-off scores derived from these contrasts and criteria are 67, 88, 75, 89, 67 and 81. Two points should be noted with respect to these results. First, the criterion of maximizing the average relative proportion of consistent classifications invariably leads to higher cut-off scores than the criterion of maximizing the absolute number of consistent classifications because there were far more children rated ready (1333) than either not ready (107) or undecided (124). Thus relying on the proportional criterion implicitly weights the classification of one NR child below the cut-off score more heavily than one R child at or above it. The second point to note is that there is nothing sacrosanct about any of these procedures or the cut-off scores derived from them. One could derive a variety of other cut-off scores from these same data for example, by judgmentally

* This was the method relied upon by the SDE in setting the cut-off score at 88.

applying different weights to each of the various types of consistent and inconsistent classifications. What weights should be placed on different kinds of consistent or inconsistent classification depends ultimately of course on subjective judgment regarding the utilities associated with different classification outcomes, and cannot, or at least should not, be settled by any technical procedure for setting cut-off scores. Indeed, if the variety of cut-off scores which can be derived from the pilot study data mean anything at all it is simply that CSAB test results do not provide a very good indicator of kindergarten teachers judgment of whether or not children are "ready" for first grade. This also is implicitly indicated in the results of the discriminant analysis described in section 3.5.

The appendix tables which follow simply show in detail how changing the cut-off score (c) on the CSAB results would change the numbers (#) and percentages (%) of not ready (NR), undecided (UN) and scoring below (<) and at or above (≥) each possible cut-off score between 60 and 100. Arrows indicate the maximum values of each of the six alternative cut-score setting criteria described above.

Appendix Table: Data for Alternative Contrasting Groups Approaches to Setting Cut-off Scores

C	# NR<C	% NR<C	# R≥C	% R≥C
0 60	17.	15.888	1332.	99.925
0 61	17.	15.888	1332.	99.925
0 62	17.	15.888	1332.	99.925
0 63	19.	17.757	1332.	99.925
0 64	21.	19.626	1332.	99.925
0 65	21.	19.626	1332.	99.925
0 66	23.	21.495	1332.	99.925
0 67	26.	24.299	1332.	99.925
0 68	27.	25.234	1327.	99.550
0 69	29.	27.103	1323.	99.250
0 70	34.	31.776	1321.	99.100
0 71	37.	34.579	1318.	98.875
0 72	39.	36.449	1314.	98.575
0 73	43.	40.187	1312.	98.425
0 74	46.	42.991	1309.	98.200
0 75	48.	44.860	1303.	97.749
0 76	50.	46.729	1297.	97.299
0 77	52.	48.598	1289.	96.699
0 78	58.	54.206	1274.	95.574
0 79	63.	58.878	1260.	94.524
0 80	66.	61.682	1241.	93.098
0 81	68.	63.551	1224.	91.823
0 82	69.	64.486	1207.	90.548
0 83	71.	66.355	1179.	88.447
0 84	74.	69.159	1151.	86.347
0 85	76.	71.028	1120.	84.021
0 86	78.	72.897	1091.	81.845
0 87	81.	75.701	1051.	78.845
0 88	85.	79.439	1019.	76.444
0 89	89.	83.178	969.	72.693
0 90	91.	85.047	930.	69.767
0 91	94.	87.850	880.	66.016
0 92	97.	90.654	836.	62.716
0 93	99.	92.523	786.	58.965
0 94	101.	94.393	739.	55.439
0 95	103.	96.262	693.	51.988
0 96	103.	96.262	644.	48.312
0 97	103.	96.262	588.	44.111
0 98	103.	96.262	532.	39.910
0 99	104.	97.196	475.	35.634
0100	106.	99.065	422.	31.658

C	# NR<C + R≥C	Sum of % NR<C + R≥C	Av. of % NR<C + R≥C
60	1349.	115.813	57.906
61	1349.	115.813	57.906
62	1349.	115.813	57.906
63	1351.	117.682	58.841
64	1353.	119.551	59.776
65	1353.	119.551	59.776
66	1355.	121.420	60.710
67	1358. ←	124.224	62.112
68	1354.	124.784	62.392
69	1352.	126.353	63.176
70	1355.	130.875	65.438
71	1355.	133.454	66.727
72	1353.	135.023	67.512
73	1355.	138.611	69.306
74	1355.	141.190	70.595
75	1351.	142.609	71.305
76	1347.	144.028	72.014
77	1341.	145.297	72.649
78	1332.	149.779	74.890
79	1323.	153.402	76.701
80	1307.	154.781	77.390
81	1292.	155.374	77.687
82	1276.	155.034	77.517
83	1250.	154.802	77.401
84	1225.	155.505	77.753
85	1196.	155.049	77.525
86	1169.	154.743	77.371
87	1132.	154.546	77.273
88	1104.	155.883	77.942 ←
89	1058.	155.871	77.935
90	1021.	154.814	77.407
91	974.	153.867	76.933
92	933.	153.370	76.685
93	885.	151.488	75.744
94	840.	149.831	74.916
95	796.	148.250	74.125
96	747.	144.374	72.287
97	691.	140.373	70.186
98	635.	136.172	68.086
99	579.	132.830	66.415
100	528.	130.723	65.362

Appendix Table (continued)

C	# NR+UW <C	# NR+UN <C	# R≥C	% R≥C
0 60	26.	11.255	1332.	99.925
0 61	27.	11.688	1332.	99.925
0 62	29.	12.554	1332.	99.925
0 63	32.	13.853	1332.	99.925
0 64	34.	14.719	1332.	99.925
0 65	35.	15.152	1332.	99.925
0 66	38.	16.450	1332.	99.925
0 67	43.	18.615	1332.	99.925
0 68	45.	19.481	1327.	99.550
0 69	48.	20.779	1323.	99.250
0 70	54.	23.377	1321.	99.100
0 71	60.	25.974	1318.	98.875
0 72	66.	28.571	1314.	98.575
0 73	76.	32.900	1312.	98.425
0 74	81.	35.065	1309.	98.200
0 75	87.	37.662	1303.	97.749
0 76	93.	40.260	1297.	97.299
0 77	99.	42.857	1289.	96.699
0 78	108.	46.753	1274.	95.574
0 79	115.	49.784	1260.	94.524
0 80	121.	52.381	1241.	93.098
0 81	128.	55.411	1224.	91.823
0 82	130.	56.277	1207.	90.548
0 83	136.	58.874	1179.	88.447
0 84	143.	61.905	1151.	86.347
0 85	150.	64.935	1120.	84.021
0 86	155.	67.100	1091.	81.845
0 87	164.	70.996	1051.	78.845
0 88	174.	75.325	1019.	76.444
0 89	183.	79.221	969.	72.693
0 90	187.	80.952	930.	69.767
0 91	192.	83.117	880.	66.016
0 92	201.	87.013	836.	62.716
0 93	206.	89.177	786.	58.965
0 94	210.	90.909	739.	55.439
0 95	214.	92.641	693.	51.988
0 96	217.	93.939	644.	48.312
0 97	218.	94.372	588.	44.111
0 98	221.	95.671	532.	39.910
0 99	224.	96.970	475.	35.634
0100	226.	97.835	422.	31.658

C	# (NR+UN)<C + R≥C	Sum of % (NR+UN)<C + R≥C	Av. of % (NR+UN)<C + R≥C
60	1358.	111.180	55.590
61	1359.	111.613	55.807
62	1361.	112.479	56.240
63	1364.	113.778	56.889
64	1366.	114.644	57.322
65	1367.	115.076	57.538
66	1370.	116.375	58.188
67	1375.	118.540	59.270
68	1372.	119.030	59.515
69	1371.	120.029	60.014
70	1375.	122.476	61.238
71	1378.	124.849	62.424
72	1380.	127.146	63.573
73	1388.	131.325	65.663
74	1390.	133.264	66.632
75	1390. ←	135.412	67.706
76	1390.	137.559	68.780
77	1388.	139.556	69.778
78	1382.	142.327	71.164
79	1375.	144.307	72.154
80	1362.	145.479	72.740
81	1352.	147.234	73.617
82	1337.	146.825	73.412
83	1315.	147.322	73.661
84	1294.	148.251	74.126
85	1270.	148.956	74.478
86	1246.	148.945	74.473
87	1215.	149.840	74.920
88	1193.	151.769	75.884
89	1152.	151.914	75.957 ←
90	1117.	150.720	75.360
91	1072.	149.133	74.567
92	1037.	149.729	74.864
93	992.	148.142	74.071
94	949.	146.348	73.174
95	907.	144.629	72.314
96	861.	142.251	71.126
97	806.	138.483	69.242
98	753.	135.581	67.790
99	699.	132.604	66.302
100	648.	129.493	64.747

Appendix Table (continued)

C	# NR<C	% NR<C	# (uN+R) ≥C	% (uN+R) ≥C
0 60	17.	15.888	1447.	99.314
0 61	17.	15.888	1446.	99.245
0 62	17.	15.888	1444.	99.108
0 63	19.	17.757	1443.	99.039
0 64	21.	19.626	1443.	99.039
0 65	21.	19.626	1442.	98.970
0 66	23.	21.495	1441.	98.902
0 67	26.	24.299	1439.	98.765
0 68	27.	25.234	1433.	98.353
0 69	29.	27.103	1428.	98.010
0 70	34.	31.776	1425.	97.804
0 71	37.	34.579	1419.	97.392
0 72	39.	36.449	1411.	96.843
0 73	43.	40.187	1403.	96.294
0 74	46.	42.991	1398.	95.951
0 75	48.	44.860	1388.	95.264
0 76	50.	46.729	1378.	94.578
0 77	52.	48.598	1366.	93.754
0 78	58.	54.206	1348.	92.519
0 79	63.	58.878	1332.	91.421
0 80	66.	61.682	1310.	89.911
0 81	68.	63.551	1288.	88.401
0 82	69.	64.486	1270.	87.165
0 83	71.	66.355	1238.	84.969
0 84	74.	69.159	1206.	82.773
0 85	76.	71.028	1170.	80.302
0 86	78.	72.897	1138.	78.106
0 87	81.	75.701	1092.	74.949
0 88	85.	79.439	1054.	72.340
0 89	89.	83.178	999.	68.566
0 90	91.	85.047	958.	65.752
0 91	94.	87.850	906.	62.183
0 92	97.	90.654	856.	58.751
0 93	99.	92.523	803.	55.113
0 94	101.	94.393	754.	51.750
0 95	103.	96.262	706.	48.456
0 96	103.	96.262	654.	44.887
0 97	103.	96.262	597.	40.975
0 98	103.	96.262	538.	36.925
0 99	104.	97.196	479.	32.876
0100	106.	99.065	426.	29.238

C	# NR<C + (uN+R)≥C	Sum of % NR<C + (uN+R)≥C	Av. of % NR<C + (uN+R)≥C
60	1464.	115.201	57.601
61	1463.	115.133	57.566
62	1461.	114.996	57.498
63	1462.	116.796	58.398
64	1464.	118.665	59.333
65	1463.	118.597	59.298
66	1464.	120.397	60.199
67	1465. ←	123.064	61.532
68	1460.	123.586	61.793
69	1457.	125.112	62.556
70	1459.	129.579	64.790
71	1456.	131.971	65.986
72	1450.	133.291	66.646
73	1446.	136.481	68.240
74	1444.	138.941	69.471
75	1436.	140.124	70.062
76	1428.	141.307	70.653
77	1418.	142.352	71.176
78	1406.	146.724	73.362
79	1395.	150.299	75.150
80	1376.	151.593	75.796
81	1356.	151.952	75.976 ←
82	1339.	151.651	75.826
83	1309.	151.324	75.662
84	1280.	151.932	75.966
85	1246.	151.330	75.665
86	1216.	151.003	75.501
87	1173.	150.649	75.325
88	1139.	151.780	75.890
89	1088.	151.743	75.872
90	1049.	150.798	75.399
91	1000.	150.033	75.016
92	953.	149.405	74.703
93	902.	147.637	73.818
94	855.	146.143	73.071
95	809.	144.717	72.359
96	757.	141.148	70.574
97	700.	137.236	68.618
98	641.	133.187	66.593
99	583.	130.072	65.036
100	532.	128.304	64.152

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